

BUSINESS WEEK

SEPT. 6, 1947

WEEK
AGO



YEAR
AGO



Herbert H. Pease: His industry's show will be the gage of U.S. production might (page 8)

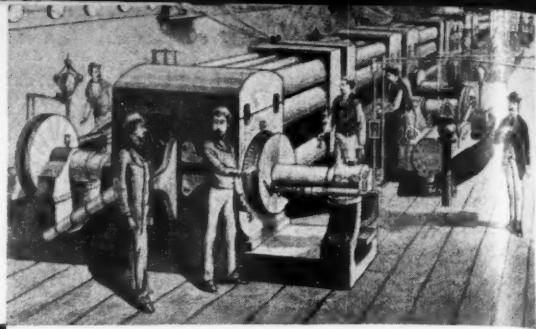
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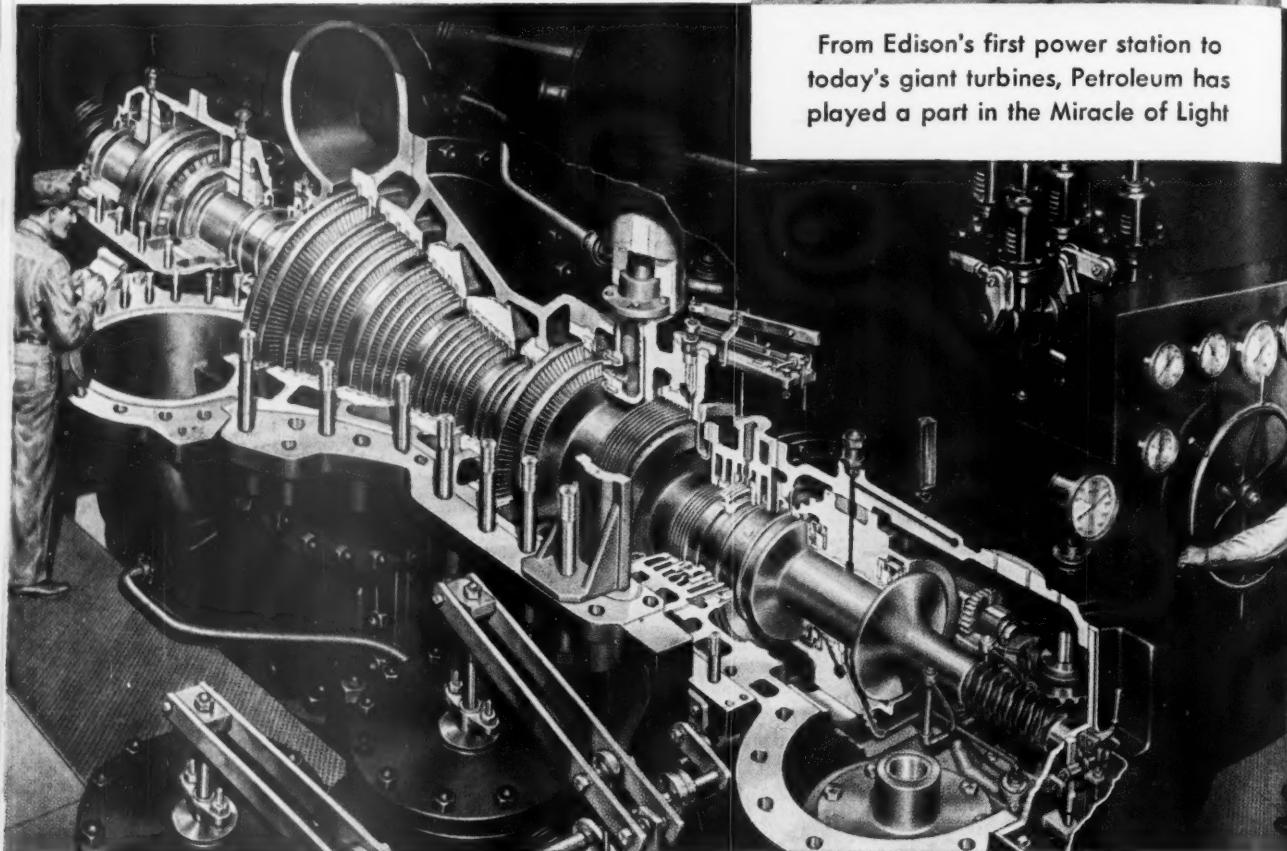
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They called it a miracle in 1882, when Thomas Edison set up the first central power station. He used special Gargoyle oils to protect the steam engines and dynamos shown above.

Today, this miracle of light and power is still unfolding. Giant steam turbines (like the one cut open above) are pouring out hundreds of times the energy of Edison's first machines. And now, as in the beginning, special Gargoyle oils are meeting the stepped-up pressures and temperatures of these modern power plants.

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B.F. Goodrich

FIRST IN RUBBER



How rubber can stretch an airplane

THE AIRLINES have maintained schedules with De-Icer protection for fifteen years. Business men can "stretch" the utility of their own planes the same way.

For B. F. Goodrich engineers have worked with the manufacturers of practically every plane of twin-engine size and larger to develop custom-built De-Icers for each model. The manufacturers now build De-Icer plumbing right into all these planes. Today, De-Icers specially made for each of these planes are as easy to order as a new airplane tire.

Two main advantages to owners and pilots result: 1) *increased availability*—De-Icers help insure completed trips, eliminate delays due to icing conditions; 2) *added safety*—De-Icers keep the leading edges of wing and tail clean of ice, permit normal flying.

A CAA requirement for airlines, De-Icers have proved to be the best ice-removal device ever developed for airplanes. They protect all leading edges. They're light weight, yet tough. And they're tailored for the individual requirements of each plane model.

With the plumbing for De-Icers already built in, the cost of De-Icer installation is low . . . usually only 1% to 2% of the plane's total value. That's cheap insurance. A network of B. F. Goodrich distributors with complete facilities for installing and servicing De-Icers for all private owners completes the picture. *The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.*

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FIRST IN RUBBER

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There is
plus protection
in Belden
Wire

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Paul Montgomery

ADVERTISING MANAGER
H. C. Sturm

BUSINESS WEEK • SEPTEMBER 6 • NUMBER 940

(with which are combined The Annalist and the Magazine of Business) • Published weekly by McGraw-Hill Publishing Company, Inc. James H. McGraw, Founder and Honorary Chairman • Publication Office, 60-62 North Broadway, Albany 1, N. Y. Return postage guaranteed • Editorial and Executive Offices, 330 W. 42nd St., New York 18 • James H. McGraw, Jr., President; Curtis W. McGraw, Senior Vice-President and Treasurer; Nelson Bond, Director of Advertising; Eugene Dufeld, Editorial Assistant to the President; Joseph A. Gerard, Secretary • Address correspondence regarding subscriptions to E. Blackburn, Jr., Director of Circulation, Business Week, 99-120 N. Broadway, Albany 1, N. Y., or 330 West 42nd St., New York 18. Allow ten days for change of address. Single copies 20c. Subscription rates—United States and possessions \$5.00 a year. Canada \$6.00 a year. Pan American countries \$10 a year. All other countries \$20 a year • Entered as second class matter Dec. 4, 1936, at the Post Office at Albany, N. Y., under Act of Mar. 3, 1879 • Printed in U. S. A. Copyright 1947 by McGraw-Hill Publishing Co., Inc.—All Rights Reserved.

WEEKLY WASHINGTON OUTLOOK

Service

THE ORIGINAL MARSHALL PLAN is dead. A new plan is taking its place —under the same name.

Key to the Marshall plan was this: Let Europe pull up its socks and frame a self-help program to get the most out of the resources it has. Let the U.S. underwrite the inescapable deficit.

But at Paris, the 16 nations have pretty much ignored the self-help angle. They just added up what they would like to have from the United States; the \$30-billion total looks fantastic to a State Dept. that knows it must get a congressional K. for the loan.

So, in Washington, officials are coming around the conviction that this country will need to step in and take over the job of organizing Europe's rehabilitation.

They're talking about a WPB-type operation—the sort of thing that might have a European staff of 4,000 to 5,000 Americans.

"How can we justify sending U.S. coal to Europe when we know we could get more coal out of their mines than they say they can get?"—that's the argument.

This new thinking runs toward lend-lease techniques, rather than more foreign loans: goods, not dollars.

For the record, an American staff would be over there just to allocate the American goods.

But it's recognized that they couldn't stop here. To allocate intelligently, they would have to develop their own blueprint of what Western Europe is capable of doing for itself.

And in making allocations, they would be enforcing the blueprint.

So far, all this is just talk inside Truman's Cabinet—talk that's getting an interested ear from top State Dept. officials, like Lovett.

But—can it be done? Will the nations of Europe stand for this kind of American managing?

Won't it look to them like just what Molotov warned would happen if they bought the Marshall plan?

These are tough questions.

The new plan can run into political troubles

just as tough as the economic troubles wracking the original version.

What it boils down to is this: The job of keeping Western Europe out of Russia's orbit is far more complex than Marshall made it look at Harvard last June.

RAYON WILL BE THE FIRST clothing entry in Clark's antitrust attack on food, clothing, and housing prices.

Action can be expected to come soon. Charge: allocation of production in restraint of trade; also price-rigging.

Prices of cotton yarn producers are being looked into, too. But not enough data have yet been collected for any decision. (The oil price case we predicted on Aug. 23 made newspaper headlines on Aug. 26.)

Clark—like Truman—realizes that antitrust action won't break today's high prices.

But Clark claims his flurry of trust-busting "big talk" already has stopped some prices from going higher. Companies simply decided they didn't care to invite a spotlight.

He thinks, also, that other companies will make a more searching analysis of their operating practices as a result of the new cases.

The first case in the food line hasn't been picked so far.

And the case against the real estate boards may turn out to be Clark's only salvo at housing.

He doesn't plan to tackle labor in this campaign. Clark was Thurman Arnold's assistant back before the war, when attempts to invoke antitrust laws against unions failed.

It's still too tough to overcome the legal presumption that featherbedding practices are employer concessions, rather than the result of management-union collusion.

ALLOCATION OF COAL for export to Europe in the fourth quarter is still undecided. And a lot hangs on the decision.

There aren't enough coal cars to go around. If Europe is to continue to get more than 5-million tons a month, ODT will have to pull open cars away from sand and gravel, other bulk items.

ODT still has authority to do it. But it has no stomach for the job. Instead, it's trying to talk

WASHINGTON OUTLOOK (Continued)

the White House into cutting Europe's coal shipments in half.

State Dept. says no.

ON PENDING NLRB CASES—filed before the Taft-Hartley law—here's what is happening:

Election cases (1,500 in the field and 200 in Washington): These are being dismissed 20 days after unions are sent notices that dismissal will follow unless the Communist-affidavit requirement of the new law is complied with.

Unfair labor practice cases (1,500 in the field and 195 in Washington): Field cases are being handled like election cases; the 195 cases docketed in Washington will be handled on a case-by-case basis, as they come up for hearing.

As a practical matter, NLRB can't do anything except dismiss these too. But it doesn't intend to wipe them all off the books at once—as Hartley demanded.

Actually, NLRB feels itself caught in a cross-fire between Hartley and Truman; the President insists the board call the decisions under the new law as members see them.

However, NLRB knows that Hartley's repeated blasts don't have the sympathy of most members of Joe Ball's joint congressional committee.

Some committee members have publicly disagreed with Hartley. It probably will happen again.

AGRICULTURE DEPT. is seeking to shift a significant portion of food buying for export away from grain.

Officials are talking up—among Army, State Dept., and foreign purchasers—such items as: dried fruits (prunes and raisins), fats and oils, dairy products, sugar. Meat is not being pushed—too expensive.

Prospect for reduced corn harvest in the U. S. this year makes it obvious that this country can't equal last year's record of 15-million tons of cereals exported.

So, if calories exported are to remain anywhere near the same, menu must shift somewhat.

Difficulty, of course, is that every one of the offered substitutes costs more dollars—for the same food value—than grain.

There is no serious talk yet of restoring wartime controls on domestic use of grains.

Only Congress could do this; Agriculture's powers have lapsed.

And Agriculture officials don't intend to ask authority for such controls as limiting grains for livestock feed and alcohol, or requiring higher extraction for flour—unless things get a lot tougher than is now indicated.

RAILROADS are planning a third round of freight rate increases.

Tipoff is likely to come next week, when hearings begin before ICC on the railroads' application for another postwar 17% jump in rates.

Witnesses will say: Wage increases, higher prices for steel and coal make still another 12%–15% rate hike necessary.

Supplemental application, however, isn't expected until after all union wage and rule change issues are arbitrated.

PUBLIC ROADS ADMINISTRATION is quietly worrying over the way the toll road idea is catching on.

From Maine to Georgia to California, nine states have toll highways under construction, or have authorized such roads this year.

Proponents call them the solution to the nation's traffic problem. But PRA—and most highway groups—see toll roads no boon to any but the relatively few through drivers. And, for the most part, toll roads must be duplicated with free roads.

• Pay no attention to any reports you may hear that Interior Secretary Krug is leaving the Cabinet. He isn't. . . .

• Arthur M. Hill, board chairman of Atlantic Greyhound, heads up the National Security Resources Board—peacetime WPB created in the new armed services unification law. It's a key spot of business interest (BW—Mar. 8'47, p16). . . .

• September issue will be the last of Commerce Dept.'s monthly magazine, "Domestic Commerce." . . .

• Small manufacturers and suppliers wanting to sell to government can find out what's being purchased, where, and on what terms at any Commerce Dept. field office. . . .

• Add ex-Gov. Kerr of Oklahoma to your list of Democratic National Chairman prospects. He was counted out of the running last winter because of oil industry connections. Now he's being talked up again by the remember-the-labor-vote crowd for whom Hannegan has been a spokesman.



If gasoline were sold in boxes . . .

it would be easy to check the ingredients in every gallon you buy. This important information could be printed on the label. However, it isn't practical to label gasoline that way, because it is pumped into your gas tank, sight unseen. That's why oil companies display the "Ethyl" trade-mark on their pumps. The familiar yellow-and-black emblem means that they have improved their best gasoline with "Ethyl" anti-knock compound—the famous ingredient that steps up power and performance. Ethyl Corporation, Chrysler Building, New York 17, N. Y.

look for the **ETHYL** trade-mark



**Problem
Solved with
Webster-Nesbitt
Unit Heaters**



Webster-Nesbitt Little Giant
Down-Blow Unit Heater

In 1944, Schutte & Koerting Co., manufacturing engineers for the power and process industries, sought a means to eliminate shortcomings in the heating of their Cornwells Heights, Pa., plant.

High ceilings with skylights and a long narrow manufacturing bay with large windows on both sides, had caused difficulties, discomfort for the men and lost time due to colds.

After study, a decision was reached to install Webster-Nesbitt Little Giant Down-Blow Unit Heaters above the crane runways and approximately 40 feet above the ground. Care was taken to determine the proper size, spacing and discharge velocity of these units.

After more than two heating seasons of operation, here are the results according to Winfield Beals, plant superintendent:

The heated air leaves the unit heaters at high velocity, diminishing at the working level so that the air spreads out to provide comfort in the working zone. The units are placed so that the effective heat circles overlap each other.

If you are experiencing difficulty in heating your plant, perhaps an engineered application of Webster-Nesbitt Unit Heaters and related Webster Equipment may provide a solution.

WARREN WEBSTER & CO., Camden, N. J.
Representatives in principal U. S. Cities :: Est. 1888
In Canada, Darling Brothers, Limited, Montreal

Webster
HEATING SYSTEMS

THE COVER

The biggest industrial exposition ever to be held in the U. S. will take place this month in Chicago. It will be the first Machine Tool Show in 12 years, will occupy 11½ acres of the huge, government-owned Dodge-Chicago plant. It will draw metalworking production executives from all over the world. From Sept. 17 to 26 they will walk three miles up and down aisles to see 3,000 of the industry's latest models in action.

• **Producer**—The man responsible for this extravaganza is Herbert Hoyt Pease. As president of the National Machine Tool Builders' Assn., sponsor of the exposition, he was given the job as the show's producer. His main problem: being sure of a big enough stage.

Last year the association found that the Dodge-Chicago plant was exactly suited, signed a lease for space with Preston Tucker, who had made a preliminary deal with the War Assets Administration to take over the plant as an auto factory. But Tucker's future operations were clouded; no one seemed sure that his lease with WAA would still be in force this September.

To protect itself, the association's directors wanted an iron-clad written contract with WAA. But they couldn't get WAA's signature. Then Pease stepped in—and did the job singlehanded.

• **Home Town Boy**—Herbert Pease is a good example of the home town boy who made good in his home town. A graduate of Yale's Sheffield Scientific School, he has spent almost all of his business life in New Britain, Conn., where he was born. In 1902, he went to work as a mill hand in the local Stanley Works' cold-rolled steel mill. Within six years he was mill manager.

Pease left New Britain for two years to dabble in oil in Cincinnati. But in 1910 he went back to become second vice-president of the New Britain Machine Co. In 1920, he was elected president, 10 years later became board chairman. He still holds both posts.

• **More for Less**—Pease is a staunch advocate of the theory that the way to produce "more goods for more people at lower cost" is for U. S. industry to keep its production machinery up to date. To promote the idea, he has been hammering the Treasury Dept. to adopt a policy of "free" depreciation. This would permit buyers of new industrial equipment a depreciation reserve each year equal in dollar value to the dollars spent in that year.

The Pictures—U. S. Steel—15; McGraw-Hill—17; Int. News—18, 84, 101; Wide World—21, 24, 34; Acme—70; Coy Watson—22; Akron Beacon-Journal—66; St. Louis Post-Dispatch from Black Star—5, 78.



Common Parent!

THE synthetic rubber tire and the can of purified oil had the same beginnings—in an oil well.

In the processes of changing natural oil into useful products, pressures are of vital importance. The oil itself, or water, steam, air or gases are forced or held under controlled pressure—and here is where Ashcroft Gauges serve with enduring accuracy.

Nearly a century of making pressure gauges would be enough to guarantee quality but with this background of knowledge, progressive engineering has evolved new designs and the use of the latest alloys and materials.

For with enduring accuracy, Ashcroft Gauges are designed for the utmost economy in installation and long service.

If you need pressure gauges for any purpose, specify "Ashcroft" and be sure.

Stocked and sold by leading Distributors everywhere... When you order gauges, insist on ASHCROFT... Write for booklet.



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BUSINESS OUTLOOK

BUSINESS WEEK
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Business will show some upturn in September. Vacations and summer weather, which have retarded industry, are behind us.

Trade, too, will be good. This has been ready-cash week for veterans with terminal-leave bonds. And it was wage-boost week for the nonoperating employees of the nation's railroads.

Supporting factors right now a little more than offset the ominous world-trade outlook and continuing handicaps on all-out production.

Present business activity shows up better when it is measured in dollars than it does in terms of manufacturing activity.

Factory employment has declined moderately since March. Yet total civilian employment has broken all war and postwar records.

Industrial output declined further in July—stood at 178 on the Federal Reserve Board index against 190 in March. Yet retail sales (in dollars) held about even from March through July.

Value of manufacturers' shipments in July were 8% under June on a daily average basis. Yet consumers spent at a \$160-billion annual rate; that's double the spending for either 1929 or 1941.

Prices go right on distorting the business picture—and providing new dangers for the future.

The slow moving wholesale average for about 900 commodities has gone up for eight consecutive weeks. Each week of the last six has set a new postwar high.

This index now is 53½% above the 1926 average. It has risen 20% in a year. The 4% rise in the last two months has been an extraordinarily fast climb for this normally snail-like measuring stick.

Spot commodity markets give some reason to hope that the price rise at wholesale may shortly slow down.

The daily index of 28 sensitive raw materials prices has shown only a slight change in the last month. This, at face value, should be the grounds for some little satisfaction.

But this steadiness of the average conceals some very sharp swings.

Cotton, for example, has taken a rather marked spill; grains and livestock, on the other hand, are up dramatically. Foodstuffs are higher while industrial raw materials have declined a bit.

Commodity prices are vulnerable to the changing world-trade outlook.

Not only does the dollar crisis curtail foreign nations' ability to buy; it also adds to their incentive to sell in this market.

Where such sales are government regulated—tin, rubber, cocoa—an effort probably will be made to maintain prices. But this will not necessarily be true in more competitive markets such as copper or cotton.

The Argentine's raw materials historically flow to Britain. But Argentina has plenty of sterling exchange, too few dollars. Might this foreshadow a flow of linseed oil and hides to the U. S.?

Or will Chilean copper continue to go to Britain unless payment is guaranteed in dollars?

This type of question has many a commodity operator perplexed.

Even the "iron curtain" isn't a complete block to trade between the

BUSINESS OUTLOOK (Continued)

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Soviet satellites and the hard-money U. S. Small shipments of copper from Czechoslovakia and Yugoslavia have come to this country recently. (This has been so-called blister or fire-refined metal; neither country has facilities for electrolytic refining at present.)

Gains in farm income will be less spectacular for the second half of this year than they were for the first.

The reason is one of price—but that doesn't necessarily mean prices are going down. The basis of comparison has changed.

In the first half of 1947, the comparison was between a free market and OPA-ceilinged prices a year earlier. Now the contrast is with post-OPA prices for comparable 1946 months.

The first half of this year farm income was up 25%; prices were up almost that much. But July was another story. That was the first month after OPA in 1946. This year's marketings of crops and livestock brought in only 7% more than in July, 1946.

If prices decline seasonally in the peak marketing season just ahead—a debatable point—the margin over year ago will be further pared.

Relationship of farm income to national income will remain high this year. In 1946, net income from agriculture was 11.3% of national income, a percentage matched only once in 26 years (in 1925).

Income per person on farms was 68% ahead of the 1910-14 parity level—but, of course, there are many fewer persons on farms now.

Farmers' costs of doing business rose faster from mid-July to mid-August than did farm product prices. In fact, prices paid were the highest ever at 235% of the 1910-14 average, up 2% for the month.

Prices received for farm products held at 276% of 1910-14.

Interestingly enough, corn figured in both income and costs. The rise in corn helped support the index for farm products; it also contributed substantially to the higher cost of purchased feed.

High costs are taking all the profit out of dairying and chicken raising for parts of the country that don't raise their feed requirements.

In fact, small-scale chicken raisers in the East are selling their flocks rather than pay \$100 a ton for feed. Feed dealers who normally supply them face the grim prospect of going out of business.

Larger operators buy feed wholesale rather than from dealers. But even these chicken raisers are beginning to wonder where they get off.

For 1947, this situation spells fewer eggs and less dairy products.

Quicksilver isn't a raw material that will make or break very many businesses, but there's an interesting struggle going on for the market.

Spain and Italy often controlled prewar distribution through a cartel. But one of Italy's major producing areas went to Yugoslavia in the division of the Istrian peninsula (of which Trieste is the principal city). And the Yugoslavs recently have been peddling this output around Europe.

Now Spain has cut quicksilver prices to around \$80 to \$81 delivered in this country, several dollars below domestic quotations. And the Spaniards threaten to cut more unless Yugoslavia and Mexico play ball.

Even at going prices, U. S. mines are hard put to make ends meet.

FIGURES OF THE WEEK

THE INDEX (see chart below). *183.9 †183.7 †185.1 183.3 162.2

INTRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity)	92.4	93.4	94.9	84.5	97.3
Production of automobiles and trucks	86,958	†84,726	97,712	74,960	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$18,543	\$17,229	\$18,738	\$17,045	\$19,433
Electric power output (million kilowatt-hours)	4,940	4,953	4,806	4,404	3,130
Crude oil (daily average, 1,000 bbl.)	**5,160	5,153	5,088	4,833	3,842
Bituminous coal (daily average, 1,000 tons)	1,992	1,958	1,967	2,026	1,685

TRADE

	85	85	84	85	86
Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	85	85	84	85	86
All other carloadings (daily average, 1,000 cars)	65	66	69	63	52
Money in circulation (Wednesday series, millions)	\$28,302	\$28,239	\$28,129	\$28,376	\$9,613
Department store sales (change from same week of preceding year)	-6%	-6%	+5%	+40%	+17%
Business failures (Dun & Bradstreet, number)	64	59	69	28	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100)	420.0	419.7	418.8	332.8	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)	264.6	266.2	268.3	202.9	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)	376.2	375.2	370.0	301.7	146.6
Finished steel composite (Steel, ton)	\$75.41	\$75.41	\$75.41	\$64.45	\$56.73
Scrap steel composite (Iron Age, ton)	\$37.83	\$37.83	\$41.63	\$19.17	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	21.500¢	21.500¢	21.500¢	14.375¢	12.022¢
Wheat (Kansas City, bu.)	\$2.43	\$2.34	\$2.27	\$1.95	\$0.99
Sugar (raw, delivered New York, lb.)	6.32¢	6.32¢	6.19¢	4.20¢	3.38¢
Cotton (middling, ten designated markets, lb.)	32.46¢	33.49¢	35.70¢	36.15¢	13.94¢
Wool tops (New York, lb.)	\$1.745	\$1.725	\$1.640	\$1.330	\$1.281
Rubber (ribbed smoked sheets, New York, lb.)	15.17¢	15.45¢	15.57¢	22.50¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	121.6	121.6	124.7	127.9	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.18%	3.18%	3.16%	3.04%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.56%	2.56%	2.56%	2.52%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	14-11%	14-11%	14-11%	14-11%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	1%	1%	1%	1-1/8%	1-1/8%

BANKING (Millions of dollars)

Demand deposits adjusted, reporting member banks	47,095	46,780	47,145	45,625	††27,777
Total loans and investments, reporting member banks	63,730	63,646	63,479	68,375	††32,309
Commercial and agricultural loans, reporting member banks	12,406	12,301	11,967	9,444	††6,963
Securities loans, reporting member banks	2,162	2,047	2,118	3,370	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	38,400	38,527	38,739	46,884	††15,999
Other securities held, reporting member banks	4,237	4,227	4,232	3,984	††4,303
Excess reserves, all member banks (Wednesday series)	850	790	800	714	5,290
Total federal reserve credit outstanding (Wednesday series)	22,478	22,636	22,310	24,102	2,265

*Preliminary, week ended August 30th.

†Revised.

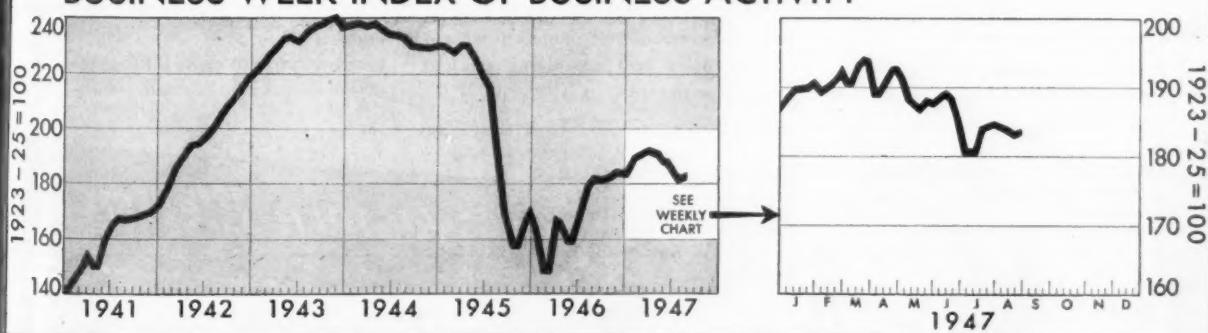
‡Ceiling fixed by government.

**Estimate (B.W.—Jul. 12 '47, p. 16)

††Date for "Latest Week" on each series on request.

**Estimate.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





Putting a telephone in for you ...a sample of teamwork by these two >>

Installing *one* telephone is a fairly simple job.

But making it possible for the Bell System to install telephones at a rate averaging 25 a minute every working day, calls for a lot of skillful teamwork by Western Electric—supply member of the Bell Telephone team.

Western Electric manufactures the telephones, wire and other equipment—

buys the installers' supplies and tools—delivers all these things where and when needed throughout the nation.

That's just a *small* sample of teamwork by Western Electric.

Teamwork on a *vast* scale goes into manufacturing, purchasing and distributing all kinds of telephone equipment and supplies and installing central office switchboards.



Western Electric has always been an integral part of your Bell Telephone service—helping to make it the world's best at the lowest possible cost.

MANUFACTURER...

of 43,000 varieties of telephone apparatus.



PURCHASER...

of supplies of all kinds for telephone companies.



DISTRIBUTOR...

of telephone apparatus and supplies.



INSTALLER...

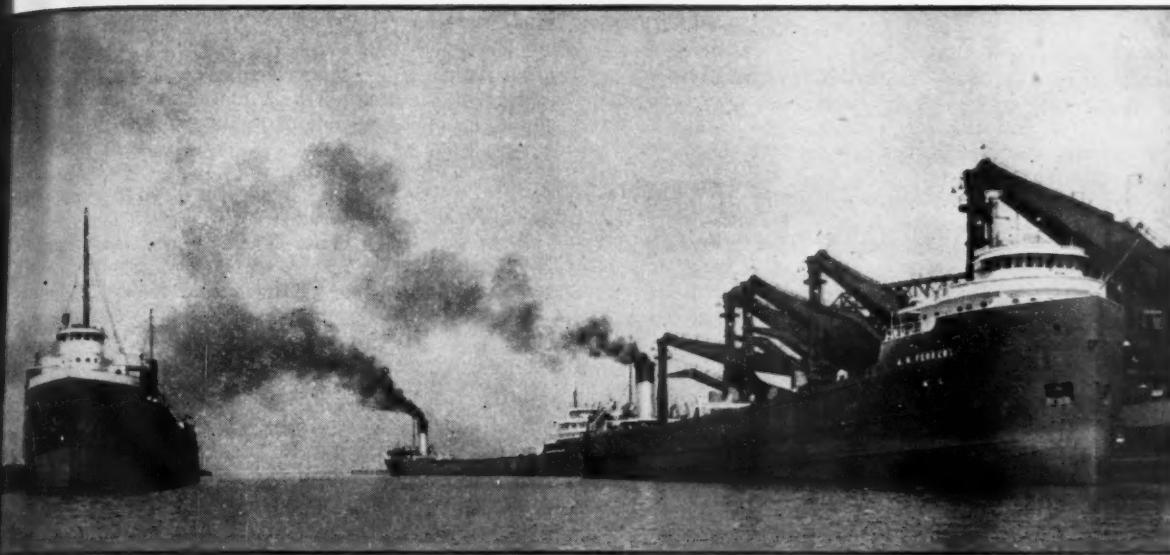
of telephone central office equipment.



Western Electric

A UNIT OF THE BELL SYSTEM SINCE 1882





GREAT LAKES ORE SHIPS carry the load in an uneven race against time and a continuing steel shortage

Shortages May Hit Steel

Late spring, too few steamers put Great Lakes ore shipments behind schedule as lower mine production, freight car squeeze cut coking coal supplies. Yet steel demand is at new peacetime high.

Despite high output, steelmakers have tried in vain to make steel supply meet demand. This week new threats to the achievement of that goal loomed ominously. The threats had a familiar, unpleasant ring: Shortages of two basic raw materials, iron ore and coking coal, seemed to be in the making. If the shortages materialized, they would be decidedly limiting factors in steel output for the next eight or nine months.

The situation, in brief, is this:

The Lakes—Iron ore shipments from Lake Superior mines to lower Great Lakes ports are running behind schedule. Enough ore must be shipped during the summer months to meet blast furnace needs during the five winter months when the lakes are closed to navigation.

As matters now look, ore stocks next May 1 might be down to 8-million to 9-million tons—the lowest carryover in recent years. It would spell danger to many steelmakers, for it would not be divided evenly as to grade and would not be evenly distributed among steel producers.

The Mines—The second shortage is already more clear-cut: Coking coal stocks already are down to dangerous levels. Stocks on July 1 were 7,103,000 tons—enough for 28 days. A month

later, stocks had dropped to 4,800,000 tons, or only a 19.4-day supply.

Since this is an average figure, it means that some blast furnaces already may be operating on little more than a hand-to-mouth basis as far as coke is concerned. And with the freight car shortage due to get worse before it gets better (BW—Jun. 21 '47, p15), the prospects of increasing rail shipments of coking coal are dim.

There's a short-term factor, too, that's plaguing the steelmakers and threatening to delay deliveries: the need for repairs to overworked equipment.

• **85-Million Ton Goal**—Spurred by the insatiable demand of the metalworking industries, steel mills expect to produce some 85-million tons of ingots in 1947. This forecast, made by the American Iron & Steel Institute, compares with the wartime peak of 89.6-million tons in 1944. It is far above the industry's best peacetime year, 1940, when output was 66.9-million tons.

Lake Superior mines supply some 85% of the nation's iron ore. To meet ore requirements of the steel producers at Chicago, Pittsburgh, Youngstown, and other steel centers, lake shippers set a 1947 goal of 85-million tons of ore.

• **The Late Spring**—But spring came late on the Great Lakes. Normally the

shipping season starts on Apr. 1; however, heavy ice kept ore boats immobile until late in the month. Thus several weeks were lost. Coupled with this was the fact that a number of ore boats were taken out of service, due to age or high operating costs.

As a result, shippers are now willing to settle for 80-million tons of ore. Their chief fear: that the total may not exceed 77-million tons.

• **Carryover**—May 1 is the starting date for all calculations on ore. On that date this year the carryover was 13.5-million tons—about a two-month supply at the prevailing rate of use. (Prior to 1940, when the industry used about 40-million tons of ore a year, a 20-million ton carryover was considered normal.)

Ore shipments up to last week totaled 48,396,000 tons. The shipping season usually ends about Dec. 1. That means that 32-million tons must be moved during the next three months if the 80-million ton goal is to be reached.

Allowing for current consumption (conservatively estimated at 6.5-million tons a month for the rest of the year), steelmen expect the ore stockpile will total about 36.5-million tons on Jan. 1.

• **Abnormal Conditions**—Under normal conditions, this would be enough to keep blast furnaces supplied until the 1948 shipping season opened. But conditions are not normal. Steel demand is running at a new peacetime high, while the steel scrap shortage continues (BW—Aug. 16 '47, p19). Thus mills are forced to use more pig iron in their steel furnaces.

So ore consumption, historically higher in winter than in summer, is ex-

pected to run slightly more than 7-million tons a month. That would cut ore stocks to a dangerously low 8-million or 9-million tons before additional ore will start flowing from mines next spring.

• **Coal Production Off**—The current low level of coking coal stocks is a direct result of the coal miners' 10-day vacation in late June and early July.

Bituminous coal production has dropped since miners began working an eight-hour instead of a nine-hour day under their new labor contract (BW—Jul. 12 '47, p80). Bureau of Mines figures set output in the week ending Aug. 23 at 11,950,000 tons; a year ago it was 12,154,000 tons. Figures for earlier weeks show an even greater disparity between the output of coal in 1946 and in 1947.

• **Freight Cars, Too**—Part of this decline, however, is attributed to the freight car shortage. Many mines are operating only part time, because they

can't get cars to ship to full productive capacity.

Every section of the country is short of the open-type cars used for shipping coal. And mines are competing for their supply with shippers of ore, building stone, gravel, sand, steel products, sugar beets. The Assn. of American Railroads estimates the present shortage of this type of freight car is running 12,000 cars a day. It was 11,000 cars a day a month ago, 10,000 cars a day in May and June.

• **Winter Relief?**—A.A.R. officials expect the shortage to continue at present levels for another 60 to 75 days. Then cold weather will reduce shipments of such items as building stone, and the shortage situation may ease.

Coal men believe that if mine output can be maintained at the present level, most industrial and domestic users will get enough. This does not preclude the possibility of local shortages, nor of a serious situation in coking coal.

Esso Holds Its Price Line

Oil industry was skeptical when Standard of N. J. said it would not raise prices. Nevertheless it didn't. Now that summer demand for gasoline is over, competitors may cut $\frac{1}{2}$ ¢ per gal., too.

Eleven weeks ago Eugene Holman, president of Standard Oil Co. (N. J.), told the world he could see no public advantage in further crude oil price boosts. Higher crude prices, he said, would not give consumers more gasoline and fuel oil. The public would simply have to pay more for the same amount of product.

Six weeks ago Standard Oil's major marketing subsidiary implemented the Holman policy. It announced it intended to "hold the line" on product prices (BW—Aug. 2 '47, p10).

Some of Jersey Standard's competitors have cracked uncharitably that it's Washington—not the public—that figures in this price policy. For anybody as big and farflung as Standard Oil, say the cynics, good behavior is strictly a must. And there are also those who think N. J. Standard might have been embarrassed by raising prices during a lush earnings period; profits in the first half of 1947 jumped to \$140-million from \$88-million a year earlier. Be that as it may:

• **Half Cent Under**—A number of the Jersey Standard marketing subsidiaries have kept their wholesale gasoline and fuel oil prices about a half cent a gallon under competitors' quotations. They extend over most of the Atlantic Coast area from Maine to North Carolina, and into Louisiana, Arkansas, and Tennessee.

In normal times, this policy would

have produced only one result: Competitors would have been forced to cut prices. But today the oil industry's problem is to meet consumer demand for gasoline and fuel oil (BW—May 17 '47, p48). No company is in a position to take on more business, the usual goal of a price cut.

• **Skepticism**—First reaction of a big slice of the oil industry, therefore, was: "How long can Standard Oil hold out?"



PRICE CONSCIOUS. Esso's Eugene Holman is determined to "hold that line."

There were predictions that Esso dealers' pumps would run dry; that dealers would not maintain the differential, but would boost retail prices to competitor levels and pocket the half-cent. (Esso controls the tank-wagon price, not the retail price.)

There were even charges that Esso would have to subsidize its marketing operations at the expense of other departments in order to maintain its policy. And more than one independent saw the policy as a move to force him to the wall.

• **Praise**—There were also plenty of laudatory comments. Shell Oil Co. Inc., characterized Esso's stand as "courageous and praiseworthy." For a time Shell tried to follow suit. But the pressure got too great. To keep business from exceeding its refining and transportation capacity, it was forced to raise prices to competitor levels.

But Esso this week is still sticking by its guns. It claims only 3% of its dealers have raised their prices. But others contend the figure is closer to 30%. A spot check by Business Week correspondents indicates that in most of the Esso marketing territory dealers are "holding the line." Single major exception appears to be in New England. There, dealers feared that the lower price would drain them of supplies which are necessary for servicing regular customers.

• **No Dry Pumps**—Esso maintains that not one of its dealers' pumps has run dry because of the price differential. Last March its dealers were told they could expect to receive just about as much gasoline as they did a year ago. The problem of allocating these supplies was left to the dealers. And Esso is taking on no new wholesale customers.

With the peak of the gasoline marketing period ended (BW—Aug. 30 '47, p19), it appears that Esso has won its battle as far as motor fuel is concerned. Oilmen say they wouldn't be surprised if competitors started reducing prices to Esso's level.

• **What of Fuel Oil?**—What will happen on fuel oil prices remains to be seen. Demand for this product is starting to build up with the approach of the heating season. Barring a general increase in crude oil prices, which Esso would have to meet, it believes it can "hold the line." Other oilmen aren't quite so certain that such a position will be possible.

While this price policy fight goes on, Esso officials wryly face a Washington (D. C.) federal grand jury investigation on gasoline price-fixing charges. The probe is part of Justice Dept. effort to break up what Justice contends is illegal control of service stations by oil companies.

Gen. Clay Needs U. S. Business Management's Help

For the next three months Ralph Smith, editor of *Business Week*, will be in Europe cataloging the important problems—and the possibilities of their solution—for business and management men. His dispatches and observations will be published in *Business Week* as he sends them. From Berlin—first stop-off—Ralph Smith this week cabled:

BERLIN—American business faces one more war priority.

It's a top priority on American business know-how, claimed by Gen. Lucius D. Clay. That claim rests on the service that Gen. Clay is rendering the American enterprise idea as Commander-in-Chief, European Command, in Berlin, Germany.

The answer to what this has got to do with the military government of a conquered foe is easy—once you have been in Berlin.

• **Tasks Ahead**—In the first place, you'll quickly see here that a war isn't over when you have felled your enemy and knocked the gun from his hands. The whole lesson of this dangerous ruin is that it's peace again only when you have put him back on his feet with his hands on a plow or a lever, chained there by incentives lacking when he took up the gun.

In the second place, you'll quickly find that the sound of military government is not the rattling of sabres but the drum-fire of typewriters. Risen again in Berlin are Washington's WPB and OPA and their alphabetical brethren, entrenched in very similar quarters to rule over another economy.

The similarity only starts at the gateway to the great block of offices that Hermann Goering built for his Luftwaffe in the outlying suburb of Zehlendorf which Allied bombs spattered lightly. Where it ends—whether the weaknesses of the Washington war agencies continue to be duplicated here along with their strengths—may depend heavily on American business.

• **Reassembling the Puzzle**—The weaknesses can easily be compounded if American management does not place itself on call to supply Gen. Clay with men who have the know-how that's needed for the complex job of putting this German industrial picture-puzzle together again.

No flood of decorative front-men is wanted. And there are only two reasons why the top-decision-makers of American corporations should them-



Ralph Smith

selves visit Berlin: (1) to get an education on what their companies can profitably do in Germany to put American trade dollars, instead of American tax dollars, into the bloodstream of the economy; (2) to get an understanding of the importance to them of Gen. Clay's conviction that America can, and must, propagate its system of free enterprise in this listless land.

• **Wanted: Specialists**—What is wanted, as the need arises, is the services of their management men who are qualified specialists in the industries with which the general must deal and in the supervisory functions which he must discharge.

When Washington's WPB needed, say, a textile expert, it recruited him from the offices of a textile manufacturer. And, if his employer was wise, as well as patriotic, that man went to Washington on leave—without a loss in income.

Patriotism, wisdom—and an understanding of what Gen. Clay is trying to do for America and American ideas in Europe—will counsel the same corporation policy on company men recruited through the War Dept. for OMGUS (Office of Military Government in Germany—U. S.).

• **Quadrupartite Frustrations**—The Berlin assignment is a far tougher one than Washington ever presented. The toughness lies not in living conditions here; they were, in many ways, far worse in Washington. It lies not only in the difficulties of working with industries despoiled of initiative, first by the Nazi regime and later by ruin. There are the even greater frustrations of dealing with

some of our Allies, of trying to get things done on a "quadrupartite" basis. You have got to come to Berlin to see how the conquerors—Americans and Russians, for instance—can trip and crack their heads together over the body that lies at the bottom of this bomb crater in the heart of Europe through which all the world stumbles.

No business leader who comes here is going to look Gen. Clay in the eye and say: "What is there in it for me if I release one of my management men whom you want?" But the general has an answer for such a question. There are two parts to it. • **Worthy of Study**—He sees ahead—how far is anyone's guess today—a Germany deloused, reclothed, and restored (under wraps) to the world community of trade. If he is right, it will be a Germany whose people, plants, goods, and ways are worth firsthand—and forehanded—study by American companies now embarked on a new era of world trade.

He sees the men of OMGUS, stationed at this crossroads, gaining daily experience in the hard techniques of working out commercial relationships with all the other breeds of Europe. For all of them are coming here, or being coaxed here, as OMGUS tackles its share of the almost hopeless bizonal task of trying to make Germany pay its way in exports. And he thinks rightly that any American company which sends a man to help him is sending a man to a unique postgraduate college in international competition.

• **Competition Means Democracy**—For the world of tomorrow—when, as never before, all the globe must be America's market—that's a quid pro quo which should count heavily in the calculations of any American executive interested in a good investment. And if Gen. Clay owes no American a quid pro quo, he'll be the first to talk of offering a competitive incentive. Competitive incentives are the essence of the lesson that he is trying to teach the employers and employees of this historically over-organized and over-cartelized economy that has licked the hand of big government for so long that it has lost the taste for competition.

And, in the thinking of the American proconsul for Germany—if not in that of his Allied opposite numbers—the taste for competition is the taste for democracy.



TONGASS TIMBER: a gold mine of lumber—for about \$50-million

Alaska Beckons

U. S. offers vast timber reserve for pulpwood. But many paper companies are afraid of the cost of developing tract.

FOR SALE: 1.5-billion cu. ft. of hemlock and spruce—enough timber to supply a 525-tons-a-day pulp mill for 50 years. Location: Tongass National Forest, Alaska.

If the U. S. Forest Service had chosen the classified columns to announce its grand-scale plans for developing an Alaskan newsprint industry, this is the way the ad might have read. But to newsprint starved publishers, no matter where they saw the news, it looked good. This week many publishers had an eye cocked on Washington to see how the bait was doing. The big question was: Would some paper manufacturer bite at it?

• **Costs**—The first expanse of Alaskan timber the Forest Service has put on the block is in Alaska's southeast panhandle on Thomas Bay, near Petersburg. As paper manufacturers looked over the prospectus, they pondered. The scheme was so far-reaching that every detail had to be weighed. Any sale would involve a lot more than buying a vast expanse of timber. It would mean carving a domain out of a virgin wilderness.

All told, the Forest Service estimates the cost would come to a staggering \$50-million.

• **From Scratch**—The buyer would have to build a town and logging camp for 3,000. He would have to tap a locked-in lake, 150 ft. above tidewater, run a pipeline from it to the bottom; there

he would have to build a hydroelectric plant. He would have to erect docks so he can ship out his finished products and bring in supplies. He would have to lay down logging roads at \$25,000 a mile. And all of these would be in addition to a pulp mill of 500 tons daily capacity, which would cost \$30-million itself.

And a mill, even if built, couldn't be in production before the spring of 1950.

• **Uneconomical?**—Established paper companies in the East say the Alaskan projects would be fantastically uneconomical. Additional costs of manufacturing in Alaska would inevitably boost the cost of the final product. Among them: freight charges for transporting supplies to the mill, and for shipping out the paper; higher labor costs; higher construction costs.

Some West Coast pulp producers, however—including the Puget Sound Pulp & Paper Co.—have surveyed the area. West Coast producers process the same kind of timber in the same kind of climate, with the same kind of labor. It's generally assumed they know what they would be up against.

• **Pricing Off**—But even one West Coast firm has indicated it's not interested. Crown Zellerbach Co. first explored Alaskan timber possibilities in 1928. This week, James D. Zellerbach, president of the company, said: "We found that it would be impossible to deliver the finished product [from Alaska] at a price competitive with that we could produce and deliver at our existing U. S. and Canadian mills."

• **More Timber Available**—The Forest Service's plan calls for selling an initial block of timber—75% of it within 1½ miles of navigable tidewater—to supply

a mill for a 50-year period. The buyer would have to agree to replant all cut over areas to put the yield on a sustained basis.

Another 35 years' supply, also available to the purchaser, is nearby. Together, the two units would produce a never-ending timber supply on an 85-year cycle.

A prospective buyer must go through a good bit of paper work even to qualify as a bidder. He must first file statement attesting to his (1) financial responsibility, (2) experience in the paper industry, (3) knowledge of timber, water power, other operating conditions in southeast Alaska. That done, he can submit a sealed bid. The Forest Service will open all bids and post them Oct. 1. The highest bid will get the preliminary award. But in any event, the Forest Service will not consider a bid under 85¢ per cu. ft.

In addition, the bidder must deposit \$25,000 with each bid. If it's accepted, he must post an additional \$75,000 within a week. Within a year, he'll have to show that he has immediately available at least \$8-million for plant construction and other expenses.

• **Legal Problem**—Only one legal barrier remains in the way of a clear title to the forests: Does the U. S. government actually own the land and timber, or are the descendants of the Alaskan Indians the rightful owners? Congress left the answer up to the courts, or to a later decision of its own. But it permitted the Forest Service to go ahead with the sale in the meanwhile. Money received goes into a special treasury fund pending a final decision.

TRAINS VS. PLANES

The trend in public preference for air travel, which continued through the war years, has been halted. Railroad transportation has now gained slightly in passenger favor.

So go the results of a recent nationwide survey by Opinion Research Corp. The study also disclosed:

- Air transportation is still increasing its appeal to persons under 30.
- But the airlines apparently have a major problem in boosting their popularity among older people, lower income groups, residents of rural areas, women, large segments of the population in the South and Midwest.

Of 2,583 persons interviewed for the Assn. of American Railroads, 51% said they would prefer to travel by train even if fares were equal; 44% said they would rather fly; 5% were undecided.

The research organization reported that in 1946, 62% of the interviewed persons under 30 years of age preferred air travel to rail. In 1947 the figure increased to 65%.

Atom Insurance

Life underwriters set up code to determine, without rating security, hazard of insuring individual workers.

Insurance protection for atomic workers has long been one of the incidental, by no means minor, worries of personnel men in firms having atom contracts. It has bothered insurance company actuaries, too. Workmen's compensation and company group policies have been available for most such workers. But atomic project employees have been unable, until now, to take individual life insurance policies. This has proved to be a definite handicap in recruiting. Not so much, perhaps, because potential workers want insurance, but because the fact they don't get it makes the job look scary. Few Casualties—On the record, the atomic work is not dangerous in the light of the safety precautions used. There have been only a handful of fatalities attributable to actual atom hazards, and the over-all safety record has been better than in most industrial employment.

But the hazard is new and mysterious. There's the ominous, if remote, danger of delayed effects—such as occurred, sometimes years later, in the early days of X-ray. And practically no information has a secret classification.

This last has been the biggest trouble. When an Oak Ridge employee, says, applies for insurance, he's not permitted to tell what his job is or how dangerous it is. The insurance company has no way of knowing whether it's a good risk. And the application turned down.

Job Code—To get around this, the Atomic Energy Commission, early this summer, arranged security clearance for Mel C. Stratton of Travelers, who is nominated by the Life Underwriters Assn. Stratton is just winding up a study of all the atom projects. He has set up a code system designating degrees of hazard and has assigned code numbers to the different jobs.

Today, when an insurance application is received from an atom worker, the company can obtain from AEC the hazard rating of his job. Since most workers never get near a pile or a "hot spot," the rating usually shows a normal risk.

What to do when the companies quote high rates or refuse coverage on the jobs that are risky is the next problem before AEC. The commission will have to decide whether to reimburse employees for extra premiums.

It may decide to offer them some sort of government insurance, instead.

• **Existing Coverage**—Group insurance has been less of a problem. Most of the large companies holding atom contracts have group policies covering their regular employees. The carriers have generally been willing to extend these to the comparatively small proportion of atom workers.

Contractors who have tried to get special group coverage specifically for workers in their atom projects have had trouble in the past. Recently, however, several companies have indicated willingness to quote on such policies. • **Carry-Over**—Workmen's compensation has been provided since the beginning of the Manhattan District on a basis worked out during the war by the armed services. The government, essentially, acts as a self-insurer—but uses the claim-adjusting services of com-

mercial firms. The carrier settles claims and charges the government a premium, at the end of the year, large enough to cover the claims incurred.

One other protection has been offered right along. Atom contracts include provision for extra benefits, up to \$10,000, for people injured or killed by specifically atomic hazards. However, since the hazards were spelled out in detail in the contracts, the provision has always been classified secret. Consequently, it wasn't the morale-builder it might have been, since most of the men protected weren't aware of it.

• **Exclusion?**—One other feature of atomic risks is causing some actuarial head-scratching. Should policies issued to the general public contain an exclusion clause for atomic work like the old aviation clauses? No action is known to be pending, but insurance men don't deny they're wondering.



BOEING'S FORUM on the stratosphere took place from the ground to 30,000 ft.

Boeing Shares Its Findings on Stratosphere

From research man to pilot, the aviation industry knows that the route to fast, smooth, dependable flying runs through the stratosphere—at heights of 25,000 ft. and up. But strange things happen to planes and men in the extreme cold and reduced air pressure as planes climb higher and higher.

• **Symposium**—Last week in Seattle Boeing Aircraft Co., pioneer in stratosphere flying, laid the findings of its research before 250 leading aviation engineers and executives. The occasion was a three-day symposium on high-altitude flight, sponsored by Boeing.

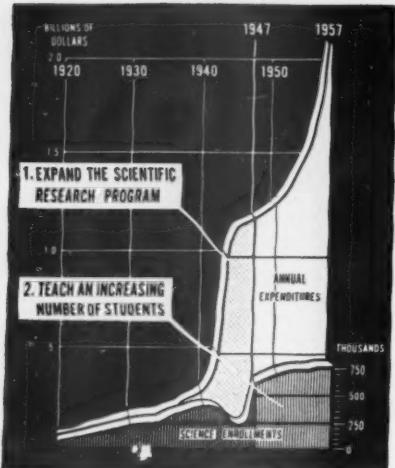
Representatives of every major

aircraft manufacturing company—the competitors of Boeing—were there. So also were officials of domestic airlines and lines in England, Sweden, Holland, and Argentina, Army and Navy representatives, university researchers, and medical specialists.

• **Why?**—The exchange of information was one-way. To those who asked why Boeing should thus aid its competitors, the answer seemed two-fold:

(1) The symposium might well open the way to a continuing interchange of technical information.

(2) For Boeing, this was prime publicity within the industry for the company's new Stratocruisers.



SPEND MORE MONEY, train more men for scientific research, says the President's Scientific Research Board.

Science Policy

Presidential board wants research spending, now at record level, doubled. Expanded training program recommended.

The Truman Administration laid out its long-range program for scientific research last week. The most important recommendations (chart, above):

- (1) The country should double the amount it is now spending on research.
- (2) The number of scientists and technicians trained in our colleges and universities should be greatly increased.

Details of the program are about as expected (BW-Jun.7'47,p15). They are contained in the report of the President's Scientific Research Board—a Cabinet-level group headed by presidential assistant John Steelman. The board was set up last October to review the whole field of government policy on science.

• Over a Billion—Public and private research spending this year—excluding work on atomic energy—will total more than \$1.1-billion. More than half of the expenditure is federal—about \$500-million of it military. Of the total, only about \$110-million is for basic scientific research. The remaining \$1-billion-plus is for applied research and development work.

Despite the fact that this year's research spending is at a record high—nearly twice the wartime average, and about four times the prewar level—it fails to meet present military and economic needs, in the view of the board. More or less arbitrarily, the board figures that at least 1% of the national income should go to research. That comes to about twice the present level. The board would like to see expenditures on

research in pure science quadrupled to something like \$440-million; military work held to its present level; nonmilitary applied research—industrial and governmental—approximately doubled to about \$1-billion.

• Not for 10 Years—The hitch is manpower. Present expenditures on research plus the wartime slump in training have created a shortage of trained, experienced workers—a shortage which particularly hits the teaching and pure research staffs of the universities.

Therefore, the board suggests no immediate increase in expenditures. That will have to come gradually—as the hordes of students now in the colleges complete their training. It may be 1957 before the kind of science program the board wants can be in full operation.

Here are some of the other things the board recommends:

- Organization of a permanent interdepartmental committee to coordinate federal scientific programs. It would set general policies; prevent overlapping projects (there aren't many in the civilian agencies, the board says, but the military programs swarm with them); see that a sensible balance is kept between different fields of research. President Truman says he's going to do this right away.
- Amendment of corporation tax laws to provide more incentive for expenditure on industrial research. This will probably come up when Congress overhauls the tax laws next year; it should be attractive to the Republicans.
- Study by the Council of Economic Advisers of factors limiting research in specific industries—such as the division of the building industry into small units and the railroads' heavy investment in obsolete equipment.
- Creation by Congress of a National Science Foundation which would concentrate on financing fundamental research in universities. Unlike the bill vetoed this year, it should have a director responsible to the President. It should spend about \$50-million the first year, reach at least \$250-million by 1957.
- Provision of scholarships for science students. This should be done before 1950, when present G.I. educational benefits will be running out. It should be administered by the U. S. Office of Education rather than by the foundation. And it should be part of a general program of federal aid to college students.
- Legislation permitting use of outright grants instead of research contracts when the government finances nonfederal work.
- Legislation permitting all departments to obligate research money five years ahead to insure stable programs.
- Inclusion in the rehabilitation programs of the Marshall plan of provision

for reestablishing scientific research in Europe—and on a basis of free international exchange of information.

• Improved arrangements for translation and distribution of published Russian scientific results. Russia is spending just about the same amount on science that we are.

PESOS FROM PARKER PEN

Many an industry has tried to show how important its payroll is to the business life of the town where its plant is located by paying its employees in two-dollar bills, or silver dollars. The point was that the money would spread through the whole community.

Next week, Parker Pen Co. will use a variation of the idea. Purpose: dramatize to its employees and to Janesville (Wis.) citizens their stake in flourishing, two-way world trade. On next payday, Sept. 19, 800 (40%) of Parker Pen's 2,000 Janesville employees will get Mexican pesos instead of U.S. dollars in their pay envelopes.

Parker Pen hopes that payment in foreign currency will bring home the fact that normally 40% of the company's output is sold overseas. Company officials expect that the dramatization will make Janesville citizens more aware of how the present acute world trade situation affects them personally.

Of course, only a fraction of Parker's foreign trade is with Mexico. But Mexican currency is being used because it is both available and stable, company executives said. The company will pay out 367,000 pesos in the stent. Merchants and bankers have agreed to accept the pesos at the current exchange rate of 20¢. Parker's plant and office workers gave unanimous approval.

Parker Pen officials and Janesville businessmen think that the idea can be copied in other cities interested in promoting foreign trade.

ECONOMICS VIA D. DUCK

American Broadcasting Co. believes that education should be a pleasant process. To implement its thesis, the network will broadcast a candy-coated lesson in economics next week, based on the 20th Century Fund's monumental study of "America's Needs and Resources" (BW-Apr.26'47,p55).

The one-hour broadcast will star two well-known Walt Disney characters: Donald Duck and Jiminy Cricket. Clarence Nash and Cliff Edwards, the voices behind Disney's characters, will come to New York for the show, which will be titled, "1960? Jiminy Cricket!"

Music, drama, and fantasy will all be the stars. Results of this unusual combination of talents will be heard Monday, Sept. 8, at 9 p.m. (EDT) over ABC network stations.



AGAINST DOWNWARD HEMS, Dallas women parade in protest. But the trade is betting on a weakened resistance by fall.

The Apparel Trade Pitches Some New Curves

That new fall silhouette, which is supposed to give today's woman an air of Victorian fragility, is dainty but tough. It's a better-than-ever bet it will still be around long after the protests and the gags fade away.

The stakes are high, and, like any invasion, the style change was plotted carefully and well in advance. Take the word of a woman in the Dept. of Commerce that the girls are going to wear the new garb and like it. So says Mrs. Virginia Collier, economist in the apparel division.

Rise and Fall—For business the controversy is no gag. Tied up in the rise or fall of the new mode are huge aggregations of capital in fabrics, cutting, and retail businesses. The \$250-million-a-year luggage business and the billion dollar jewelry industry have their eggs in the same fall style basket (BW—Aug. 23 '47, p17).

Times have been hard in the women's apparel trade. Production the first quarter of this year was 16%—22% behind the same quarter in 1946. In April and May the picture worsened, as comparisons by the Dept. of Commerce disclose (figures for the two months in thousands of garments made):

	1946	1947	Change
Blouses, waists ..	13,836	8,340	-40
Untrimmed coats	3,355	1,894	-44
Suits	2,830	1,082	-62
Dresses	42,870	32,987	-23

Shot in the Arm—But in May, after advance showings of the new fall styles, department stores began placing orders and the apparel business got a needed

shot in the arm. This week—as cutters hoped a real uptrend was under way—the big stores were reordering heavily.

Reason: The stores in the large cities are more confident in the salability of the new clothes, even at higher prices. Acceptance of the style change is lagging in the smaller cities. But that's the way it usually goes with big style changes.

Textile manufacturers are keeping close tabs on the situation. Each new dress sold this fall represents added yardage—from $\frac{1}{2}$ yd. to $\frac{3}{4}$ yd. per dress over last season. There's a corresponding yardage increase in undergarments too. Sales of more materials at higher

prices aren't hard for them to take.

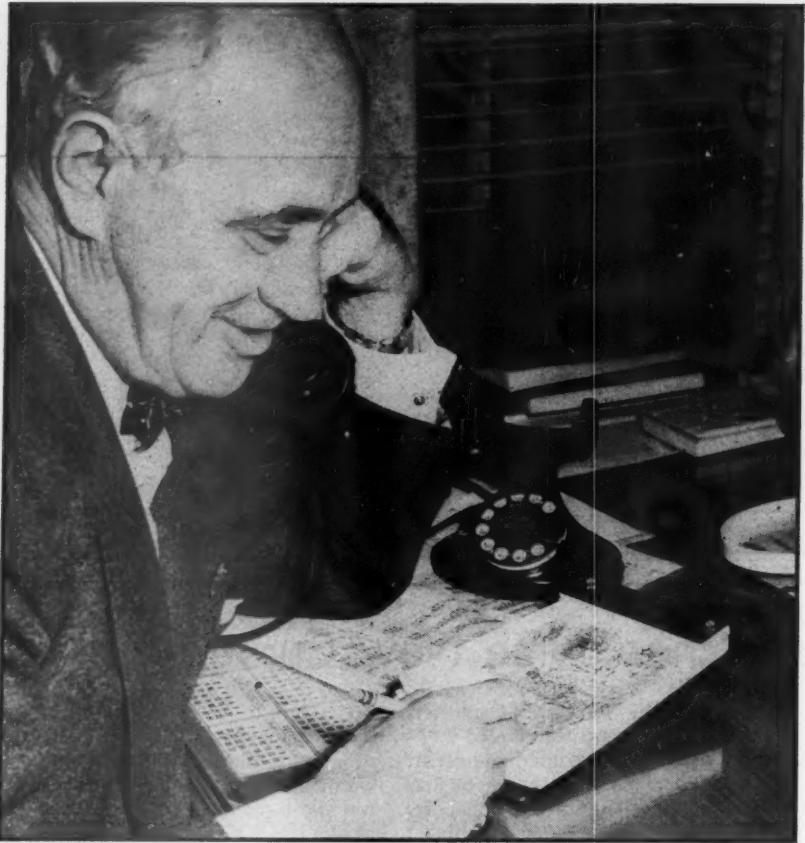
• **Frills Inevitable**—For those worried over the fashion risks, Mrs. Collier has words of comfort. She points out that war shortages ruled out frills, thus style changes, and the present change "seems revolutionary because it was so long overdue."

"There are always a few who do not follow style changes of course," Mrs. Collier reports, "but women for the most part do. I do not think the new styles will be an exception."

Meanwhile, the trade, closely figuring costs and prices, is pretty certain that last year's \$25 dress is going to cost about \$29.



HIGH SKIRTS VS. LONG ONES give American Airlines a neat publicity opening. The company reports that its stewardesses are going "to hold that hemline"—almost. The girls agree to a one-inch hem drop but not a fraction more, it's said. And American releases comparative pictures, one taken today, one in 1933 (when it was American Airways).



HOTEL CHAIN MAKER Conrad H. Hilton gets an international hook-up.

Hoteldom's Hilton Goes Global

With a knack for picking up hotels at a bargain, Conrad Hilton already has some of the nation's biggest, swankiest in his chain. Now he finds green pastures outside the U. S.

The U. S. hotel industry had a good look into the operations of its fastest-growing member this week. Conrad N. Hilton, president of the Hilton Hotels Corp., made his first public report to stockholders since his firm was listed on the New York Stock Exchange in June. According to Hilton, the half-year gross was \$20.8-million. Net income was \$2.6-million. Full year earnings, Hilton predicted, should come to \$2.65 per share.

• **New Fields**—But Hilton isn't content to have built his chain of hotels into an American giant in less than 10 years. He now threatens to go global. He has already taken two steps in this direction. Late last year, he agreed to manage a \$3-million de luxe inn to be built in Puerto Rico by a government-backed corporation. Last month he announced the addition of Bermuda's leading hotels to his string.

Since big Connie Hilton's Texas reputation expanded, he has been asked to take over properties in England, France,

Brazil, Alaska, Egypt, Hawaii, and along the Caribbean. His resistance to bargains is notoriously feeble and his managerial abilities have no apparent horizon.

• **What It Takes In**—The Bermuda deal includes the swankiest hotels of New York's small, tropic neighbor. Properties coming under the Hilton wing are the Castle Harbor, Bermudiana, St. George Hotel, Mid-Ocean Club. They belong to the Bermuda Development Co., a subsidiary of the Furness, Withy & Co. shipping line which serves the island.

Furness, Withy decided to turn over the operation of its hotels to a specialist and Hilton accepted the job. American interests in the group which now controls Bermuda Development include Hilton's financial backer, the Atlas Corp., and Pan American Airways. Hilton Hotels' investment is only \$263,000. The American interest in the hotels is 40% (the limit for foreigners under Bermuda law); the remaining 60% is held by Furness, Withy, the

British financier Sir William Stephenson, and associates. Hilton Hotels Corp. will run the three hotels under contracts giving it 20% of gross operating profits.

• **Boosting Popularity**—Even when access to Bermuda was confined to a two-day sea voyage, the green and white jewel of the Gulf Stream was a popular winter resort for shivering Easterners. Now that Pan American and other air lines bring it within two hours and forty minutes of the metropolis, it is even more so. Hilton says his company will intensify the effort to make the island a year-round tourist spot.

A significant factor is the participation of Pan American Airways, Inc. The airline recently announced formation of a subsidiary, the Intercontinental Hotels Corp., to build and operate eleven first-class hotels, costing \$75-million, in Latin American cities.

• **Decor Unharmed**—Hilton should work comfortably with his clannish Bermuda associates. Under his management policy the island hotels will be encouraged to retain their native flavor. His record shows that he considers individuality a valuable asset. He refuses to confine acquisitions within a set corporate mold. Best example of this was his handling of New York's Plaza Hotel whose awesome name heads the Hilton list. The Plaza was a grand hotel in the true international sense. Visiting nobility felt at home in it. Its regular tenants were diamond-studded dowagers and their consorts who were particular about what brandy they drank.

Bedecked bosoms heaved and the gentlemen ordered doubles when they heard that some chap named Hilton from some indefinite area called the Southwest had taken over their haven. But in no time their fears were allayed and they were calling the new owner "Connie." He had brightened up their habitat and revitalized the staff without disturbing their sensibilities or the hotel's traditions. But at the same time he rejiggered the Plaza's first floor rentals and concessions. This feat added \$172,750 in rents per year.

• **Neglected Gold Mines**—The Plaza is a glorified example of Hilton's knack for picking up neglected gold mines. He bought the stately pile for \$7.4-million in 1943. It cost \$15-million to build in 1907, would cost many times that now.

In the same year Hilton got New York's Hotel Roosevelt on a 21-year lease. The war boom was slow to reach the city or Hilton could not have made such deals. The full flood hit just about the time he got possession.

Two years ago Hilton realized a dream by buying the world's biggest hotel: Chicago's 3,000-room Stevens, which cost \$28-million to build. It would cost \$42-million today. Hilton got it from the government for just \$7.5-

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6, 1947

IT WON'T FILL THE NIGHT WITH MUSIC

Or wash windows, or even diaper the baby.

The Comptometer Payroll Plan makes no such promises. It has only one function — to provide *final* records from *original* postings. And that's music to plenty of ears!

Simplicity itself, this money-saving plan sidesteps needless copying by posting directly to the employee wage statement. Bookkeeping and filing are reduced to one short form — completing five important operations with one fell swoop.

Look it over, and you'll readily understand how it enables you to get out the payroll *faster* — with less labor — without costly machines. And with maximum protection against error, too — regardless of the size of your payroll.

Your nearest Comptometer representative is ready now to give you the cost-cutting details. The Comptometer is made only by Felt & Tarrant Manufacturing Co., 1733 N. Paulina St., Chicago 22, Ill.

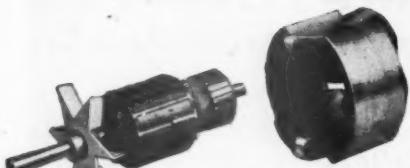
COMPTOMETER
REG. U. S. PAT. OFF.
ADDING-CALCULATING MACHINES



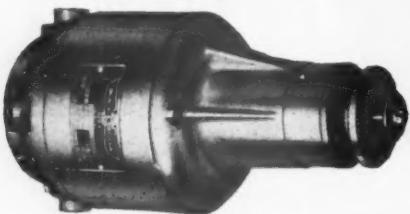
Teaming up with America's

Finest products

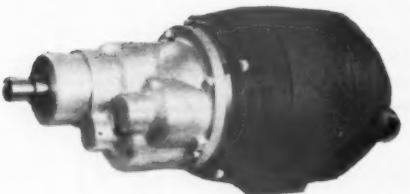
Lamb Electric MOTORS



Small series universal motor parts specially designed for food-mixers and sewing machines.



Universal motor, with shaft carried on double row ball bearings; developed for use as a high-speed grinder.



Light-weight universal motor with efficient spur gear speed reducer.

• Special application... thorough engineering... exacting manufacture are the three advantages of Lamb Electric motors that are basically important in obtaining a high standard of product performance. It is because of these exceptional advantages that Lamb Electric motors are being teamed up with more and more of America's finest products.

THE LAMB ELECTRIC COMPANY
KENT, OHIO

Lamb Electric
SPECIAL APPLICATION
FRACTIONAL HORSEPOWER MOTORS

million. That same year he bought Chicago's Palmer House for \$19,385,000.

- **Selling Counts**—A true trader, Hilton knows when to sell as well as when to buy. He paid \$400,000 for the Rossi in Los Angeles, made \$1,000 a day out of it for three years. Later he sold it for a solid \$1-million.

In 1939 Hilton picked up a sorry orphan at Long Beach, Calif. Immediately following its rejuvenation, the influx of war workers and Navy spenders made the Long Beach Hilton the chain's biggest earner, percentagewise. When he saw the boom fading Hilton sold the property for \$1.7-million—net profit of \$727,000.

- **Bad With Good**—It hasn't all been milk and honey. Hilton was glad to be



SPOT SERVICE

Pittsburgh's bridges are getting a face lifting. And Nes-Con Painting Contracting Co. is proving you can create goodwill even from paint splashes. Travelers whose cars get flecked are invited (above) to stop at the end of the bridge for a polishing job (below)—and it is on the house.



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Boston streets aren't really so narrow; they're just fuller!

We admit it; it's gotten so bad around here that pedestrians have to walk on the sidewalks! And, thanks to *The Boston Globe*, it's getting worse every day!

It seems that whenever a Bostonian gets an idea he'd like to buy . . . or sell . . . a car, he naturally—and rightly—turns to *The Boston Globe*. In fact, during the first six months of 1947, *The Boston Globe* carried nearly double the total automotive classified lineage of its nearest Boston competitor (*Boston*

Globe, 417,933 lines; paper B, 221,674 lines). Number of individual ads carried by *The Globe* was almost double paper B and was more than the combined totals of papers B, C, and D!

The place to sell an automobile in Boston is *The Globe*! And *The Boston Globe* "pays off" for any advertiser with something to sell in the free-spending \$2,000,000,000 Greater Boston Market, for *The Boston Globe* is Boston's *best-read* newspaper and Boston's *best buy*!

(Trust us to come out of a traffic jam with a success story!)

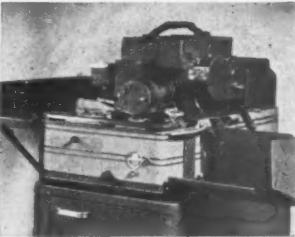
The Boston Globe

MORNING • EVENING • SUNDAY

National Representatives: J. B. Woodward, Inc., New York, San Francisco, Los Angeles Osborn, Scolaro, Meeker & Co., Chicago, Detroit

Solve Your Mail Handling Problems with a USPM METERED MAIL SYSTEM

USPM Model 88 Metered
Mail Machine—fully automatic,
high speed.



USPM Model 155 Metered Mail
Machine—motor-driven.



USPM Model 45 Metered Mail
Machine—hand-operated.

THREE'S a USPM Metered Mail System to meet every mail handling requirement—from hand-operated units for smaller offices to fully automatic, high speed units that process more than 10,000 envelopes an hour!

Each seals, prints meterstamp, postmarks, counts and stacks any class of letter mail—or prints meterstamp and postmark on gummed tape, wet or dry, for overweight mail and parcel post. Each offers real savings in lowered postage costs, automatic postage accounting, reduced clerical hours and increased business. Have your USPM specialist show you how to solve your mail handling problems with a USPM Metered Mail System that meets your particular needs.

SEND FOR THIS FOLDER

Gives complete information on USPM complete mailroom service—expert planning, systems and equipment to fit your requirements. Write Dept. BW-97.



Metered Mail Systems . . . Letter and Parcel Post Scales . . . Letter Openers . . . Envelope Sealers . . . Multipost Stamp Affixers . . . Mailroom Equipment . . . Endosographs . . . Ticketograph Systems

Sales and Service Offices in Principal Cities

U. S. POSTAL METER DIVISION

Rochester 2, New York
Commercial Controls Canada Ltd., Toronto 1, Ontario

**COMMERCIAL
CONTROLS
CORPORATION**

rid of El Ranchotel, El Paso, after years and he'd as soon not talk about the Palacio at Chihuahua, Mexico.

His most spectacular buys were those of 1940, when owners with the war-torn country sold him hotels at a quarter of their value. Today the Hilton properties include, besides those mentioned, Mayflower, Washington; the New House, Columbus; Palm Beach Biltmore; Dayton Biltmore; Town House, Los Angeles; Hiltons, in Albuquerque, N. M., El Paso, and Lubbock, Tex.

• **Executive Handling**—When seven Hilton's managers went into war service, he gave each a block of stock in Longview (Tex.) unit. He wrote them, "This will work for you while you're gone." A few months ago, Hilton sold the hotel—and each of the seven veterans netted a profit of \$21,000. He said of his executives: "I like to make 'em just a little rich."

Hilton knows what it means to be little poor. His successes have been built on many a thinly stretched shoestring. • **The Way Up**—Hilton was born on Christmas day 59 years ago. His father was a Norwegian who settled in New Mexico's San Antonio, at a time when Comanches were still taking scalps from the skulls of unwary whites. His first hotel experience consisted of meeting incoming trains and steering traveling men to spare accommodations in his father's adobe house. As the paternal activities expanded into stage coaching, coal mining, and banking, Connie became a partner. While Connie was fighting in France during the First World War, his father was killed in an automobile accident.

Young Hilton came home to find that the family fortune shrunk to \$10,000. A friend gave Hilton's career its first direction. "Connie," he said, "I've got a little money. You take it and go to Texas. The future is there."

• **First of Many**—In Cisco, Tex., at the height of the frenzy over the Burkburnett oil field, Hilton bought his first hotel, the Mobley. He calls it a "sort of flophouse" but it became a mint. The beds never cooled off. "We considered it a poor day when we didn't have a three-time turnover on rooms," he reminisces. From this start, Hilton expanded to the big cities of Texas and later to the national and international scene.

Hilton carries his six-foot-three, 195-pound frame with ease and confidence. Main reason is his love of exercise. He thinks nothing of dancing until 3 a.m. and then getting up at 7 for a hard day at his office.

Favorite hotel executives are the Southwesterners who helped him develop his organization. Together they have done wonders with the chain of hotels. At one time they were \$85 million in debt; today the figure is less than \$25-million.



What things do you think of when we say "aluminum"?

When asked that question in a recent survey, 92% of the people interviewed replied: "Pots and pans."

On the other hand, less than 4% mentioned such aluminum "naturals" as roofing and siding, heating and ventilating equipment, gutters and down-spouts, busses, garage doors, garden tools, home-trailers.

What does this mean?

Simply that while aluminum has proved itself the successor of other metals in hundreds of applications... public awareness has largely remained at the pot-and-pan level.

And without awareness, how can there be demand?

To increase consumer awareness of alu-

minum products... to interpret them in terms of *better living* and thus create demand... is the objective of the above advertisement and the many that will follow.

They will appear, in full color, in such top-read magazines as Saturday Evening

Post, Newsweek, Collier's, Time, Sunset, reaching a total audience of over 30 million every month! Such advertising, we believe, is bound to influence the buying habits of a big share of this audience. Which will mean a lot more business for the makers of aluminum products.

Ready to serve you - today...

Kaiser Aluminum

a Permanente Metals product

DISTRIBUTED BY PERMANENTE PRODUCTS COMPANY, KAISER BLDG., OAKLAND, CALIFORNIA . . . WITH OFFICES IN:
Seattle, Wash. Oakland, Calif. Los Angeles, Calif. Dallas, Texas Wichita, Kan. Kansas City, Mo. St. Louis, Mo. Atlanta, Ga. Minneapolis, Minn. Milwaukee, Wis.
Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio Detroit, Mich. Boston, Mass. Hartford, Conn. Buffalo, N. Y. New York City, N. Y. Philadelphia, Penn. Washington, D. C.

★ WAR-DEVELOPED AND FULLY TESTED ★

LAMINITE*

the new
PACKING AND CRATING MATERIAL
in lengths up to 20' 4"

LAMINITE offers the rare combination of *great strength* with *light weight*. Leading manufacturers have already proved its many qualities—for shipping metal, plastic and glass tubes, rods, bars and mouldings; textiles; rugs; linoleum and rubber products.

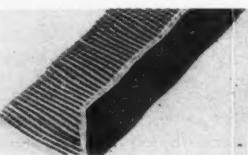
Laminite is comparable to wood in both strength and durability—but with less than half the tare weight. It is a laminated and chemically hardened material—made by an exclusive and fully patented process. Laminite can be sawed, nailed, stapled or strapped. The material is slow-burning and moisture-resistant; does not split or splinter; cushion-

ions against damage by shock.

Laminite Channel Boxes and Angles are now in production at Wassaic, N. Y. Two other plants are in the plan stage—to expedite service to the Midwest and South.

These formed shapes save time in packing and closing. Wooden stops are nailed in place for compartmenting or end-closing. All parts are readily nested to reduce storage space.

Both the production and the sales of Laminite Products are handled by men thoroughly trained in package engineering. We invite the opportunity to discuss the possible applications in your business.



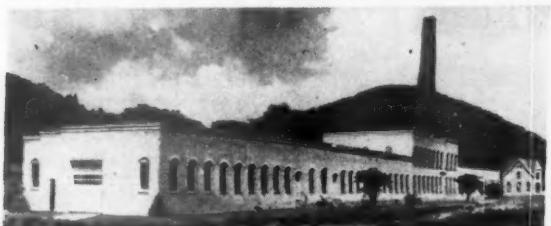
The Channel Boxes are made with interior widths of six and eight inches, and in lengths up to 20' 4".

The Angles measure three inches on a side and are furnished in ten foot lengths. Special lengths to order.

*Trade Mark

LAMINITE PRODUCTS

Made and distributed by Laminite Products Division
CRITERION PAPER CORP., 799 WASHINGTON ST.
NEW YORK 14, N. Y.
Factory: WASSAIC, New York



Station Wagons Set Popularity Record

The station wagon has been more successful since the war than ever before in its history.

Figures just compiled for the months ended June 30 show 59,725 station wagons were built—far above the previous record of 33,881 racked up in 1941. And, like other models, more would have been sold if they could have been built.

• **Practical Factors**—More practical factors than simple faddishness have helped the station wagon's rise to popularity. For one thing, most companies make their station wagon bodies of wood, instead of hard-to-get steel sheets. The auto makers have been able to build more station wagons than orthodox bodies.

For another thing, although station wagons are expensive, they are profitable models for manufacture. In low-price lines they cost \$400 or so more than the standard four-door sedan of the same make. Expensive lines run as high as \$1,000 more—as in the big Buick series. Companies are therefore happy to make station wagons when they can.

• **Jackpot for Willys**—Bulk of the industry's gain comes from one of its smaller factors, Willys-Overland. The Willys jeep station wagon has hit the jackpot, accounting for 22,115 of the last year's 59,725 sales. And this item of Willys production is still on the climb: About three-fourths of its output came in the first six months of this year.

By switching from the tapering wartime jeep production to the station wagon, Willys has continued its progress away from its precarious financial position of the mid-thirties. Its most recent six-month report showed a net profit of \$1,164,886 after taxes. Total current assets at the close of the last fiscal year, Sept. 30, 1946, came to \$52,548,397; current liabilities were about half that sum.

WESTERN WOOL INDUSTRY?

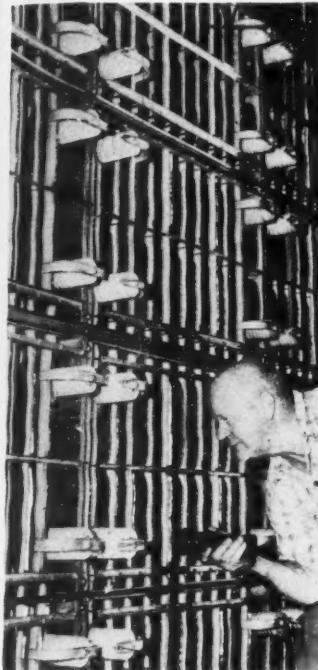
The wool industry has started to move out of New England (BW—Aug. 16 '47, p17). If the exodus continues, the West doesn't see why it—as well as the South—shouldn't get a share of the emigres.

Last week the governors of four Rocky Mountain states met in Denver and kicked off a drive to start a wool industry in their area. It may be that the drive will meet with eventual success. But it will be a long, slow process.

Almost all domestic wool comes from the west of the Mississippi. Today it is shipped "in the grease" (not cleaned) to the East. There it is scoured, then

processed into woolens and worsteds. There would be a distinct economic advantage in setting up scouring plants in wool-producing areas—scouring removes the grease and other materials which make up from 25% to 50% of the weight of raw wool; hence shipping charges on scoured wool would be less. Once scouring plants were set up, textile mills might eventually follow.

The big factor is cost of operation. Chief reason for the exodus from New England is high cost due to two factors: high wage rates and outdated facilities. A company that plans to build a new, modern mill will naturally pick an area with low labor cost. That's the South's big advantage today.



CAGING SMOKE

The old song to the contrary, these iron bars do, in fact, a prison make—to cage smoke and dust particles. New York's Madison Square Garden, famous indoor amusement arena, has gone in for electronics to get the smoke out of its audience's eyes.

The air-clearing system, linked to the air-conditioning installation, has eight units, each containing 30 cells and ionizers. Each ionizer (above) creates an electrostatic field, which gives airborne particles a positive charge as they pass. The particles are then precipitated onto negatively charged plates in the collector cells. The filters remove 85% of particles as small as 1/250,000 in.

MOBILIFT

"Pays Off"

on MANPOWER

on SPACE

on TIME



Executives who have installed MOBILIFT notice an immediate drop in production costs. It is only natural that MOBILIFT should "Pay Off" when you consider its many advantages over hand labor methods. The biggest saving is on manpower. A MOBILIFT can do the job of a whole crew of hand labor—carries larger loads, eliminates rehandling, and protects workmen from accidents and back-breaking

labor. MOBILIFT cuts the time on any materials handling job to only a fraction of the time required by a hand truck system. By stacking at higher levels, MOBILIFT increases your usable storage space. These are only a few of the ways MOBILIFT can reduce your costs.

WRITE for Full Details TODAY!



MOBILIFT

Moves Materials like a Giant!

MOBILIFT CORPORATION, 835 S. E. Main Street, Portland 14, Oregon

Comparison proves there is
MORE FOR YOUR MONEY

in the R. C. Allen 10-Key Electric Calculator

in SIMPLICITY, SPEED, CONVENIENCE and DEPENDABILITY

**\$375
U. S. LIST**



• Prompt Delivery—Authorized Dealers
in all Principal Cities

COMPARE
these superior features of
AMERICA'S ONLY
10-KEY ELECTRIC
CALCULATOR:

- Adds, subtracts, multiplies, divides
- Fully automatic division
- Fast set-up, easy clearance
- Simple 10-key electric operation allows fast, accurate touch system
- Does not require trained operator
- All factors visible while problem is being solved
- Occupies less desk space than a letterhead
- Quiet, sealed-in mechanism—no distracting carriage movement—the easy-to-read dials do all the work

R. C. Allen Business Machines, Inc.

681 Front Street, N. W. • Grand Rapids 4, Michigan
ADDING MACHINES • 10-KEY ELECTRIC CALCULATORS • BOOKKEEPING MACHINES • CASH REGISTERS



ADDRESSING
SHIPMENTS



MARKING
DRUMS



MAKING
NOTICES



NUMBERING
BINS



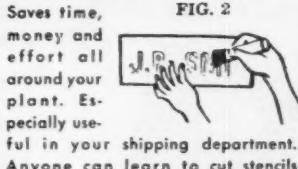
PUTTING NAMES
ON DOORS

D.B. STENCILING

REG. U. S. PAT. OFF.

**DOES DOZENS OF JOBS . . .
QUICKLY, EASILY, ECONOMICALLY**

FIG. 1



Saves time,
money and
effort all
around your
plant. Es-
pecially use-
ful in your shipping department.
Anyone can learn to cut stencils
in a few minutes (see fig. 1); then stencil neat-as-print signs,
addresses, names for only a few cents (see fig. 2). Look into the
savings possible with D.B. equipment. See your phone book
under "Stencil Cutting Machines". Or write:

DIAGRAPH-BRADLEY

3748 FOREST PARK BLVD. • ST. LOUIS 8, MO.

World's Oldest and Largest Specialists in Shipping Room Supplies



MAKING
OUTDOOR SIGNS



CODING
MACHINE PARTS



WEAR
GOGGLES
AT ALL
TIMES



MARKING
BAGS and BALES

Classified Boom

Phone book advertising
boosted by population shifts
shortages. City directories
haven't fared so well.

City businessmen have long had two vital compasses to guide them to the customers through the jungles of competition. One compass is the city directory, the other the classified telephone directory. These guides also work in the other direction. Listings and ads help the prospective customer find the seller of the product he wants.

• **Boom and Crimp**—Of the two, the classified telephone directory is now the most prosperous. Since the war, sales of classified advertising space—display and multiple listings—have boomed. Reason: Wartime population shifts and materials shortages have forced both industrial and retail buyers to find new sources of supply. The classified phone book offers convenient aid. One result: The New York Telephone Co.'s new classified directory for Manhattan, due Oct. 20, will be the biggest in its history.

The city directory has not fared so well. Paper shortages and compilation difficulties still crimp publishers' plans to put out new, up-to-date city directories. But there is another factor: Compiling city directories is an expensive operation, and subscribers must pay anywhere from \$5 to \$150 a copy. But smaller cities still afford a good field for moderate-cost compilation. So they are being cultivated.

• **Classified King**—Big name in classified phone directory advertising is Reuben H. Donnelly Corp. of Chicago. In cooperation with the telephone companies, Donnelly's acts as sales representative in Chicago (where it also publishes the classified directory), and in New York. It also sells classified advertising space for the Bell System companies in New York State, Pennsylvania, and Illinois, for parts of Bell System companies elsewhere, and for numerous independent telephone companies in smaller cities. Classified advertising space in most other cities is sold by the telephone company itself.

Classified directories have grown so large that in six cities they are now published separately from the alphabetical telephone directory. Largest separate book in number of advertisers and advertising units is Chicago's Red Book. The latest contains 63,707 advertisers, with 144,825 paid advertising units, under 3,000 classifications.

New York's Manhattan classified directory is almost as big. Other cities with separate classified books are



Can you spot the thief in this picture?

NO, YOU CAN'T. Because this particular "thief" is invisible. But his presence can be *felt*—and that's why he's getting away with grand larceny! Here's the story:

In converting their building from d-c to a-c, Philadelphia's famous Sheraton Hotel was forced to shut down their air conditioning system for several weeks. Although they maintained their usual fine service and cuisine, loss of their air conditioning cost them more than \$100 a day in dining room business alone.

It isn't often that you can measure the day-to-day value of air conditioning in actual dollars.

But *without* it your losses may be far greater than the cost of the equipment itself. And this holds, not only for commercial businesses, but throughout industry, where it would be impossible to make many of our finest precision products without properly conditioned air.

Skillfully engineered air offers your business—whatever it may be—one or more ways to cut costs, attract more customers, increase production. Not only in air conditioning, but in drying, conveying, controlling dust and fumes, inventilation and mechanical draft, the opportunities for putting air to work are almost

limitless. And that's where Sturtevant can help—not only with equipment, but with new ideas and planning aids for the architect, engineer and designer.

For Sturtevant, now a division of Westinghouse Electric, is the *only* manufacturer of *all* the components for *every* application of engineered air. Write: Westinghouse Electric Corporation, Sturtevant Division, Hyde Park, Boston 36, Mass.

Westinghouse
Sturtevant
DIVISION



Have you got the power to PROTECT YOUR MARKETS?

These days, a concern that wants to hold old customers and win new ones has to keep goods flowing to market. Production must be kept steady—and that calls for a dependable source of power.

It is easy to assume your boilers and power machinery units are everything they seem to be. But your equipment has been under great strain; replacements have been hard to get. Dangerous conditions may have developed which only inspection engineers, skilled at recognizing such hidden weaknesses, can detect.

You don't have to guess about the condition of your plant's power equipment. Like many leading manufacturers, you can use Hartford

Steam Boiler's insurance and inspection service. The Company's trained inspectors search out the hidden weaknesses and danger spots in the equipment it insures. They are guided by experience gained through 81 years of specialization in power-equipment inspection.

Exceptional engineering skill and underwriting facilities have made Hartford Steam Boiler the first choice, by far, among the management men responsible for the safe and efficient operation of boilers, engines, turbines and electrical power equipment. Your agent or broker can tell you what these services can mean to your plant.



The Hartford Steam Boiler Inspection and Insurance Company
HARTFORD, CONNECTICUT

Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

Brooklyn, Philadelphia, Detroit, and Los Angeles.

• **Reasons for Growth**—In smaller cities too, directory advertising increases have outrun population gains. Donnell gives as reasons for the growth:

- Increased specialization of business which requires the same business to be listed in a number of different classifications for maximum results;
- More complete cataloging under more classifications;
- Bigger effort to convince business advertisers of value of multiple listings.

Large national advertisers use classified ads to list local dealers under their brand names. Small local businesses frequently find the classified directory the cheapest advertising medium available.

• **Young and Old**—By contrast to the young and vigorous classified telephone directory, the city directory is ancient. The first one in history was published in London in 1516—several centuries before Alexander Graham Bell. The first American city directory came out in Philadelphia in 1785, included the names of Benjamin Franklin and Robert Morris. New York's first directory, published in 1786, listed Aaron Burr and Alexander Hamilton side by side.

Publisher of 90% of the country's



RIGHT SIDE, SISTER!

No matter what the signs say, many employees go their own way through plants—even when they may collide with a tractor. And women, says B. F. Goodrich Co., are the worst offenders.

To cut lost-time accidents resulting from such passage-way encounters, the company is putting on an intensive safety campaign. Preliminary step was a survey, which showed that three women to every man violated traffic regulations. Goodrich published the findings in house papers, challenged the girls to better the men's record.

city directory of Detroit, which was published in 1891. Troubles limited the market from city to city. The list of the market to local field men with employees eliminated.

Such expensive ads have later and more 100,000 in small of subscribers. For Some directories compilations the big appear in New York in 1938. was com in 1941.

• **Expansion**—expand more cities between in small original retained.

G.I. FA

The company owns 200,000 in Tennessee, cooperates in trans-Tennessee just before the dens River.

The greater ex-G.I. Farm Co. were so abundant uplands.

W. fathered an era with operations land. The cooperatives equa Each at least 300 neighbors, fertilizer, through turn, w

BUSINESS WEEK • Sept. 6, 1947

city directories today is R. L. Polk Co. of Detroit. Before the war, Polk published an average of 750 city directories a year, covering 2,500 communities. Troubles during and since the war have limited this year's total to about 400.

• **Market Survey**—Principal revenue from city directories comes from subscriptions. Thus Polk never undertakes publication without first making sure of the market in a city. Compilation of the listings calls for a complete house-to-house canvass of a city, usually made by local crews under direction of Polk field men. Information is cross-checked with employers to insure accuracy and eliminate phonies.

Such house-to-house canvassing is expensive in the big cities. So directories have lately tended to be more popular and profitable in communities under 100,000 population. Polk also finds that in smaller cities a greater percentage of subscribers buys the directories.

• **For Small Cities**—Most smaller city directories are published annually. But compilation is too big a job for that in the big cities; consequently the books appear much less frequently there. Last New York City directory was published in 1938. Chicago's most recent directory was compiled in 1932; Detroit's in 1941.

• **Expansion**—The only way Polk can expand is by publishing directories for more cities. So last year it bought up between 40 and 50 directory companies in smaller cities. In almost all cases, the original name of the company will be retained.

G.I. FARM CO-OP

The Dayton Coal & Iron Co., which owns 20,000 acres of land near Dayton, Tenn., is helping war veterans start a cooperative farming project. Eight veterans—the first of many expected—have just begun cutting out 200-acre farms for themselves on the company's Waldens Ridge wilderness.

The company has agreed to lease the greater part of its acreage to G.I. farmers for 99 years. The first group of ex-G.I.'s organized the Walden Ridge Farm Corp. Bulldozers and power saws were soon at work on the virgin soil and abundant timber in the Cumberland uplands.

W. B. Follis, agricultural specialist, fathered the plan. Follis said that a veteran would need \$1,100 to join the cooperative and acquire the use of the land. The money will be used by the cooperative to buy heavy-duty cultivating equipment.

Each farmer must agree to work at least 36 hours a week, on his own or his neighbors' land, and to buy all fertilizer, seed, and general supplies through the cooperative. The co-op, in turn, will market all his farm products.

13 Times as Fast as a Hand Hoist!



Whiting
ELECTRIC
HOIST
1/4, 1/2, and 1-Ton

SEND FOR
BULLETIN



Yet...
**the One-Ton
WHITING
Electric Hoist
COSTS ONLY**

\$230⁰⁰

F.O.B.
Harvey,
Illinois

You can release men and machines for productive work and cut idle time, with these new, high-speed Whiting electric hoists. Even when used only a few minutes a day, they pay for themselves in a very few months. Workers like them too, because they make it so easy to handle back-breaking loads.

To install a Whiting hoist, simply hang it up, plug it into the nearest electrical outlet, and it's ready for use. The hoist is so light in weight that one man can install it without assistance, yet it has the ruggedness to stand up under heavy duty. Investigate the money-saving possibilities of this new hoist.

WHITING CORPORATION

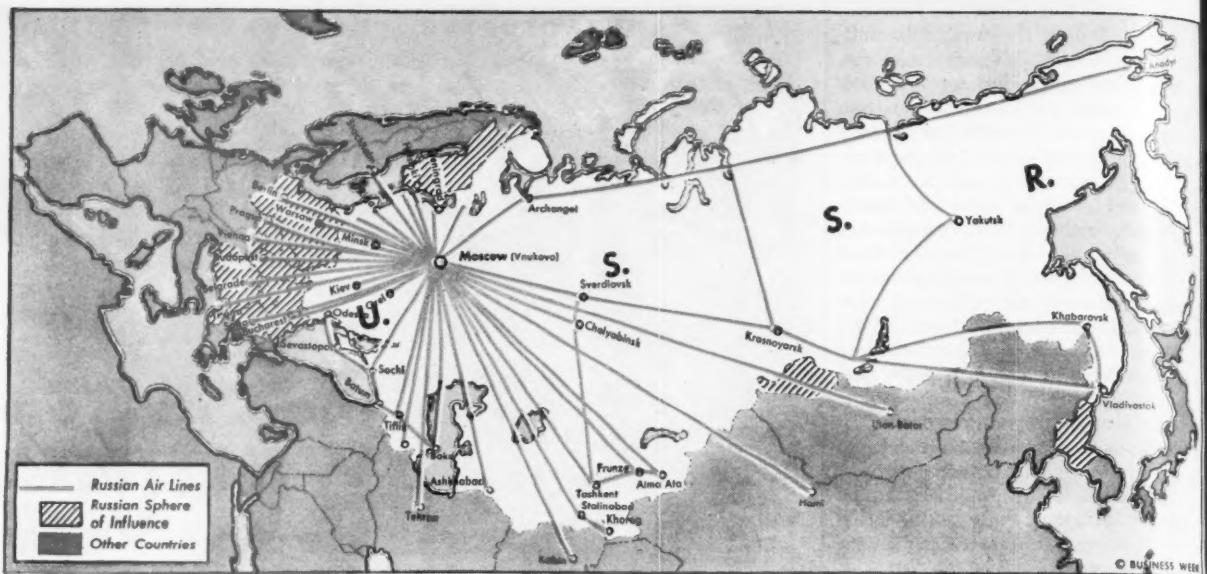
15661 Lathrop Ave., Harvey, Ill.

Send me a copy of your Bulletin H-100A.
 Send me the name of the Whiting distributor in my locality.

NAME _____

STREET ADDRESS _____

CITY _____ STATE _____



CENTERED ON MOSCOW, Russia's civil aviation routes span the U. S. S. R., tap neighboring countries.

Soviet Air Network Expands

U.S.S.R. now has 93,000 mi. of civilian routes—a 400% rise in 15 years. Fares higher than U. S. domestic rates. Most planes now are Russian-built DC-3's, but new types are being developed.

MOSCOW—The Soviet Union has lifted the secrecy lid on the progress it has made in civilian aviation. What it has revealed indicates that Russia has now climbed into the top rank among the nations in civilian as well as military aviation.

• **Mileage**—In the past 15 years Russia's civil airways—Aeroflot—has expanded its internal route mileage nearly 400%. It is constantly pushing out new lines. This year it opened up another 7,500 mi., making a grand total today of 93,150 mi. Goal is 108,000 mi. by 1950; this compares with 1937's 58,000.

The mileage of Soviet airways now exceeds any other form of internal transport—rail, highway, or waterway.

• **Traffic**—During the first nine months of 1946 Aeroflot handled some 230,000 passengers and about 30-million lb. of freight. At the present rate, 1947 traffic will top the 1946 mark by a wide margin. All told, the Russians expect this year's freight and passenger traffic to be from five to six times the prewar level.

But these figures still leave the Soviet a good way behind the U. S. Last year U. S. commercial planes carried more than 13-million passengers, well over 100-million lb. of freight.

• **Routes**—Hub of the Soviet air network is Moscow. Scheduled flights from its two major airports ply eight main trunklines linking up some 65 Russian cities. Daily two-way flights serve such important points as the Ural industrial

centers, Tashkent in Central Asia, North Caucasus and Baltic health resorts, Georgia, and the Ukraine. Weekly and semiweekly service connects faraway Siberian points. An irregular summer service skirts the Arctic coast to the Bering Strait.

Time savings are impressive. The Moscow-Krasnoyarsk (Siberia) run slices the trip from a tedious six days by rail to 16 hours. And passengers can now get to Yakutsk, 1,000 miles from the nearest railhead in far eastern Siberia, on the second day out of Moscow.

• **Local and Foreign**—Linked up with the major trunklines are a number of regional networks. For instance, within Soviet Moldavia—a small republic southwest of the Ukraine—there are now more than 1,500 miles of regional airways, connecting the capital with every city and district center in the republic. Additionally, "country circuit lines" serve rural communities and collective farms.

Aeroflot also operates an extensive foreign service, with scheduled runs to the capitals of 15 countries bordering on the Soviet Union. In most of these countries, Soviet Russia has made exclusive reciprocal agreements. British European Airways flies into Helsinki and Prague; Pan American Airways only goes to Prague. Neither airline touches Poland or the Balkans.

• **Cost**—Aeroflot's passenger rate structure, figured on the basis of the ruble's

official value (20¢), is out of line with U. S. commercial airline rates. Passage to near or intermediate points on Aeroflot averages about one-half ruble a mile, double the U. S. domestic rate of 5¢. (Figured, however, at the so-called "diplomatic" rate of 12 rubles to the dollar, Soviet fares about equal those in the U. S.)

Most expensive trip out of Moscow is that to Anadyr on the Bering Strait. The fare, 3,880 rubles, is only slightly higher (at the official 20¢ value) than overseas rates charged by airlines in the United States for little-traveled routes. But even so, it is equivalent to five months' pay for the average Soviet citizen.

On domestic lines Aeroflot puts a luggage limitation of 55 lb. a passenger carries only 11 lb. free. On international lines the limitation is 132 lb., 33 lb. free. Cost of excess baggage runs up as high as 17.6 rubles, according to distance.

• **Equipment**—Soviet air travel has come a long way. Vnukovo airdrome, 25 miles from Moscow, is sleek and modern. It has marble-finished waiting rooms, a public address system, motor-driven baggage carts, and a commercial restaurant overlooking the field. Its 1,500 passengers a day get back and forth from Moscow in comfortable express buses.

The majority of Aeroflot's transports are Russian-built DC-3's. But a new plane called the "IL-12," developed by S. I. Ilyushin, designer of the famed *Stormovik*, is apparently earmarked to replace the DC-3's on trunk lines. It seats 27, is reported to hit a speed of 60 m.p.h. faster than the Douglas. And another, much larger transport plane, seating 70, has already been publicly unveiled.

60 OF THE 100 BIGGEST MANUFACTURING CORPORATIONS IN AMERICA HAVE PLANTS IN PENNSYLVANIA

ALLIED CHEMICAL • ALLIS-CHALMERS • ALUMINUM COMPANY

AMERICAN CAN • AMERICAN CAR & FOUNDRY • AMERICAN CYANAMID

AMERICAN LOCOMOTIVE • AMERICAN SMELTING & REFINING • AMERICAN SUGAR REFINING

AMERICAN ROLLING MILL

AMERICAN TOBACCO

ARMOUR

BENDIX AVIATION

BORDEN COMPANY

CITIES SERVICE

CONTINENTAL CAN

FIRESTONE

GENERAL ELECTRIC

GENERAL FOODS

GULF

INTERNATIONAL PAPER

KENNECOTT COPPER

NATIONAL BISCUIT

NATIONAL DISTILLERS

NATIONAL STEEL

PHILIP MORRIS

PURE OIL

REPUBLIC STEEL

SINCLAIR

STANDARD BRANDS

U. S. STEEL • WESTERN ELECTRIC • WESTINGHOUSE ELECTRIC • WILSON & COMPANY

A STATE IS KNOWN BY THE COMPANIES IT KEEPS

The "blue chip" companies at this very moment are investing millions of dollars of new capital in new plants and new equipment in Pennsylvania.

GENERAL ELECTRIC has recently expanded its operations to eight plants here.

CURTIS PUBLISHING is spending \$17,000,000.00 for a single new unit.

SYLVANIA has jumped from three plants in Pennsylvania in 1939 to 13 now.

W. L. DOUGLAS SHOE COMPANY has put into Pennsylvania the first plant it has ever had outside its home town of Brockton, Massachusetts.

THE ALUMINUM COMPANY has paid \$6,500,000.00 for a new plant here.

PITTSBURGH PLATE GLASS has built here its two newest plants.

KOPPERS is expanding its chemical operations with three new Pennsylvania units.

RCA has bought a big electron tube plant.

The steel industry is spending millions by the score in Pennsylvania projects.

One big national company put a plant in a Pennsylvania city to manufacture a kitchen appliance and found labor so co-operative that it put in another plant to produce molded plastics.

If you would like to have a branch plant in this healthy atmosphere, we shall be glad to give you the facts on labor, markets, raw materials, taxes, and anything else you wish. Write to the Department of Commerce, Commonwealth of Pennsylvania, Harrisburg, Pa.



JAMES H. DUFF, Governor
ORUS J. MATTHEWS, Secretary of Commerce

SUN OIL • SWIFT • TIDE WATER • UNION CARBIDE • U. S. RUBBER

YOUNGSTOWN SHEET & TUBE

AMERICAN RADIATOR

AMERICAN VISCOSE

ATLANTIC REFINING

BETHLEHEM STEEL

CELANESE CORPORATION

COCA COLA CO.

DU PONT

FORD

GENERAL MOTORS

GOODRICH

INLAND STEEL

JONES & LAUGHLIN

P. LORILLARD CO.

NATIONAL DAIRY

NATIONAL LEAD

OWENS-ILLINOIS

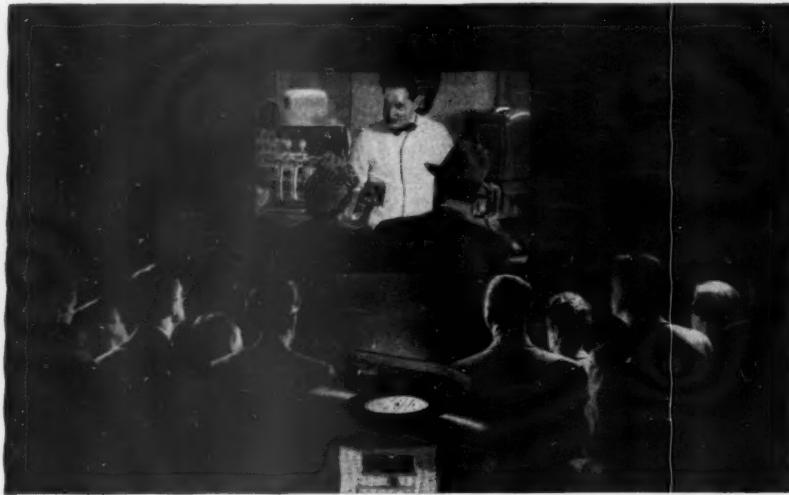
PITTSBURGH PLATE GLASS

RCA

SCHENLEY

SOCONY-VACUUM

ILLUSTRAVOX two-way presentation creates greater customer good-will



INDUSTRIAL leaders today insist on Illustravox two-way training because they know from experience that a competent staff creates better business, bigger profits, and greater customer good-will.

●●● Portable and inexpensive, Illustravox sound slidefilm training assures maximum two-way effectiveness at minimum expense. Dramatic pictures and spoken words command interest, focus full attention on your message.

●●● Trainees learn as much as 55% faster, and remember up to 70% longer than under former training methods. They are ready to meet your public with efficiency

and complete knowledge of your product, plant and services.

●●● Field-proven in peacetime and war, Illustravox comprises over 80% of all sound slidefilm equipment now in use. In all types of sales, service and industrial training, Illustravox presentation is *the one best way*. The Magnavox Company, Illustravox Division, Dept. BW-9, Fort Wayne 4, Indiana.

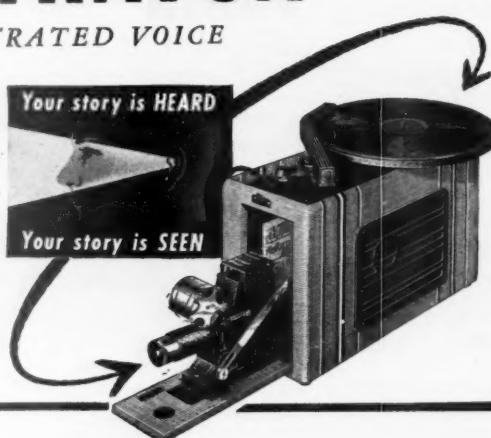
* * *

See "The Illustrated Voice." Outstanding commercial film of the year, it shows how Illustravox can best be applied to your training and selling needs. Ask your Illustravox dealer or film producer for a showing today!

ILLUSTRAVOX

THE ILLUSTRATED VOICE

DIVISION OF THE
Magnavox
 COMPANY, FORT WAYNE
 MAKERS OF FINE RADIO-PHONOGRAHES



BROOM MAKING is back to prewar quality; skilled hands use new techniques.

A New Broom

The Deshler Factory sweeps in clean profits with its prewar quality, nonwilting broom, dyed brown to catch the eye.

The broom business, which annually sweeps up \$25-million gross sales in the U. S., has a colored straw in the wind: broom fibers dyed to harmonize with the housewife's kitchen.

The Deshler Broom Factory, Deshler, Neb. (pop., 1,200), one of the largest broom and whisk makers in the country, has developed a broom with fibers the color of lightly creamed strong coffee. It has a handle painted metallic bronze to match. Deshler calls the broom the "Brownie."

● **Nonwilting Fibers**—The broom clicked from the first swish. Housewives went for its eye appeal and its fibers which don't wilt in heat or dampness. (They are chemically treated in a steam pressure bath, dyed with a special brown die imported from Switzerland.) The Deshler people are so pleased with the brown color that they don't plan to put any other on the market. Company officials say that actually the Brownie's sales would warrant putting all their 300 factory employees to work on it. But they have to keep up with industrial orders (about 25% of their output).

The broom is taking no dust from vacuum cleaners or other mechanical sweepers. Deshler's gross annual business hasn't missed going over \$1-million since it first hit that mark in 1942.

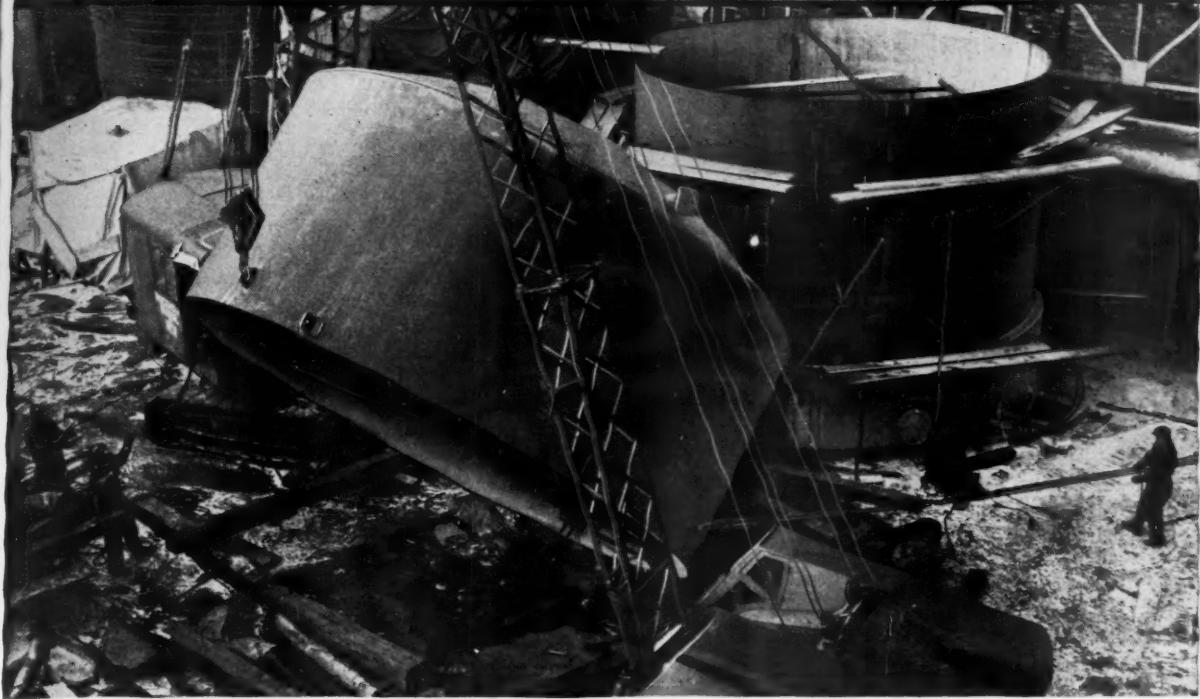
● **Back to Normal**—Quality was off a bit during the war. Handles weren't

VESSEL NEWS



A. O. SMITH
Corporation

New York 17 • Philadelphia 5 • Pittsburgh 19 • Atlanta 2
Chicago 4 • Tulsa 3 • Seattle 1 • Los Angeles 14
International Divisions: Australia, Canada



THE WIDE WORLD IS OUR SHOP. Gone are the days when all pressure vessels had to be fabricated in the shop, in order to achieve satisfactory quality control. Today, with

A. O. Smith Field Welding Specifications, and with an A. O. Smith Field Welding Supervisor on the spot, shop quality can be accomplished and assured anywhere around the world.



BOSS MAN. The Chief Inspector is the only member of the Vessel Division whose decisions cannot be overruled. Here he checks a 24-hour recorder on a heat exchanger tube bundle under test at 1850 psi.

NO GUESSING GAME! Stress analysis during fabrication, even when vessels are erected in the field, is a standard A. O. Smith procedure at critical points where calculation is difficult.

ARE DRAFTSMEN HUMAN? Vessel Division's new air conditioned headquarters is a dream come true to the drafting crew, without whose patient skill no pressure vessel could ever be built.

WHICH WOULD YOU PICK FOR ACCURATE FIGURE WORK?



With a Marchant Calculator accuracy control is so positive that the human element is not a controlling factor. With brief instruction, any office worker can do an amazing amount of figure-work with consistent accuracy.

- **Greater Accuracy Control** is one of the good reasons—the results of exclusive Marchant features—why you can rely on Marchant Calculators for worthwhile savings in your business, worth-while job advantages for your office force. The other good reasons are

- **Greater Speed**
- **Easier to Learn and Operate**

These compelling reasons can be verified on your own work by the Marchant Man in your phone book.

For a brief explanation of the swiftest, simplest and surest multiplication, write for Folder 147

MARCHANT CALCULATING MACHINE CO.
Oakland 8, California



★ **MARCHANT**★
CALCULATORS
AUTOMATIC SILENT-SPEED

THIRTY-SEVENTH YEAR

properly cured; inexperienced labor didn't have the knack of handling the broom corn. (Broom makers are skilled craftsmen, work on wage scales comparable to other highly skilled crafts.)

But all that is changed now. Quality is back to its prewar level—but not prices. Broom corn costs have quadrupled, wages have zoomed. Result: The broom a housewife paid 95¢ for in 1939 now costs her \$1.65. Deshler sees little prospect of lower prices any time soon.

• **Source**—Broom corn is a dry-weather crop produced mainly in Oklahoma, Illinois, Colorado, Kansas, Texas, New Mexico.

These six states supply virtually all the 1,400 broom factories in the country. But many of these are one-man shops, can hardly be called factories.



FOSTERING AN IDEAL

Campaigners for a better U.S.A., Thomas D'Arcy Brophy (left), president of the American Heritage Foundation, and Charles G. Mortimer, Jr., chairman of the Advertising Council, inspect the first of a series of 50 advertisements prepared for A.H.F.'s citizenship program.

Curtain-raiser for the foundation's drive to impress the public with the fundamental ideals of American life will be the Freedom Train. This rail caravan will carry a collection of priceless historical documents—including the Declaration of Independence—to some 300 communities throughout the nation.

Cars for the mobile museum were furnished by the Pennsylvania R. R., the Santa Fe, and the Pullman Co. American Locomotive Co., and General Electric supplied the locomotive.

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Process Cuts Wrinkling In Cotton Fabrics

Many men and women avoid summer suits and dresses made of cotton because they wrinkle easily. But soon cotton garments may be due for greater popularity. Reason: Monsanto Chemical Co. and Dan River Mills, Inc., last week announced a new process for making cotton cloth wrinkle-resistant.

• **Resloom C**—The process involves treating cotton fabric with Monsanto's "Resloom C," near kin to a resin formula previously applied to woolens to make them washable (BW-Jun.28'47, p66). The resin is not a coating; it actually permeates the fibers, allowing the fabric to "breathe." According to George A. Harris, president of Dan River Mills, the wrinkle-resisting qualities increase with age and use.

Textile makers have been searching for such a formula for years. Resins used previously reduced the tensile strength of the cloth so much that its wearing qualities were seriously impaired. Now Dan River and Monsanto claim that the effect on life of the garment is negligible.

• **Redesign**—To process cottons properly, Dan River had to redesign its fabrics. According to Harris, it has been used successfully with cotton chambray, gingham, plaid shirting, and cotton tweed. Meanwhile, experiments to make it work equally well on other types of cotton goods are under way.

Dan River, currently the only mill with the process, is producing the new wrinkle-resistant fabrics commercially. But volume is being restricted until "the finish can be applied equally successfully to all, or most types, of cotton goods."

Monsanto will make the resin and the know-how available to anyone who wants it. Textile men feel, however, that it will take six months for other mills to get the processed cloth into production.

LUSCOMBE'S NEW PLANE

The Luscombe Airplane Corp. of Dallas has followed the lead of other light planemakers who believe that their future depends largely on U. S. farmers (BW-Mar.22'47,p20). At a meeting of the Flying Farmers Assn. in Stillwater, Okla., Luscombe unveiled a new plane. It is a four-place, all-metal Silvaire Sedan with a 165-hp. engine, a 130-m.p.h. cruising speed. The plane has small-field adaptability (of prime importance to farmers), quick takeoff, fast rate of climb. Seats can be removed to provide 55 cu. ft. to carry 600 lb. of cargo plus pilot and a 40-gal. gas load. Price hasn't been announced.



*Where paper
had better be TOUGH*

KING COTTON knows the importance of strength, permanence and durability in record-keeping papers and cards. He's seen complete sets of records rewritten because cheap paper doesn't stand up. He knows it's poor "economy" to "save" a few dollars on card or paper stock, and later pay for the many days required to retype them.

Records on PARSONS ledgers and index bristols stay legible. The card stock is solid, not pasted together, so it can't split. Manual or chemical erasing doesn't roughen the surface of PARSONS ledgers and bristols, and the color stays the same. Ink

from pen or machine won't spread along the fibers.

PARSONS ledger papers and index bristols come in matched colors for easy handling, reference and color control. They're available in a wide range of weights, colors and qualities to fit your needs.

So for record papers or cards that will do a better job because they're better made, remember, *it pays to pick Parsons*.

It Pays to Pick
PARSONS
P A P E R S
Made With New Cotton Fibers

PARSONS PAPER COMPANY, HOLYOKE, MASSACHUSETTS

© PPC, 1947

- RUGGED - FLEXIBLE
- REDUCES MATERIAL HANDLING COSTS
- INCREASES PRODUCTION
- MAINTAINS EFFICIENCY
- PROVIDES YEARS OF DEPENDABLE SERVICE

NEW FMC Portable Power Conveyor System

DIFFERENT



In any loading or unloading operation where *flexibility* and *efficiency* are required, this system will be found unbeatable.

Hardly any condition can be conceived where it will not give you better results with less man power. Send for FREE book today. It fully describes this *new portable power* conveyor system.

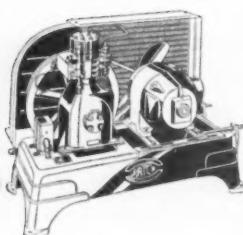
**FOOD MACHINERY
CORPORATION**
Material Handling Division
RIVERSIDE, CALIFORNIA

American
Stores Co.
Uses Over
650



Refrigerating Machines

Adequate cooling service plays an essential role in a big food store. That the Acme Markets use over 650 Frick refrigerating machines is a tribute to the ample capacity and dependability of this equipment. • Let us quote on your cooling needs.



Frick Low-pressure
Refrigerating Unit

DEPENDABLE REFRIGERATION SINCE 1882
FRICK CO.
WAYNESBORO, PENNA. U.S.A.

READERS REPORT:

Short-Term and Long-Term

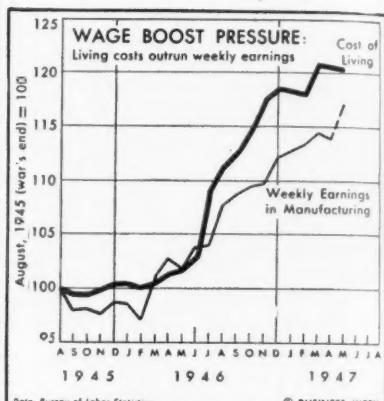
Sirs:

I have utilized your publication to a greater degree in keeping myself posted as to business and economic developments. . . . Just recently I noticed your chart of the relationship of the cost of living to weekly earnings [BW-Aug. 2 '47, p64], which reached me at about the same time as the enclosed graph from the A. & H. Kroeger Organization (both charts below).

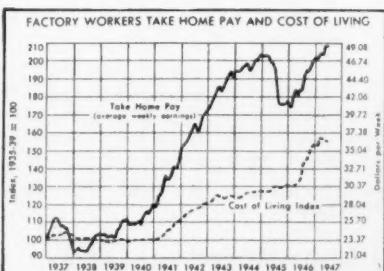
I would sincerely appreciate your analysis of the wide discrepancy between the two charts.

J. D. Perley

Employee Relations Director
Ingersoll Steel Div., Borg-Warner
Chicago, Ill.



2-YEAR TREND: Business Week chart



10-YEAR TREND: A. & H. Kroeger chart

The two charts are derived from the same statistical series—the cost of living index and the average weekly earnings of manufacturing workers. But the Kroeger chart, designed to show a 10-year trend, starts with 1937. The Business Week chart was intended to show only the short-term rate of change since the war ended in August, 1945. Since 1937, workers' earnings have increased at a greater rate than the cost of living; the Kroeger chart shows this. But during the last two years, the cost of living has been gaining faster than earnings; Business Week shows this. There is



24 illustrated pages.
20 new dollar-saving ideas for every business office.

Free booklet shows how you can work this "Office Magic"



Reduce typing 95% in sales correspondence, etc.

You'll learn how one typed letter produces a hundred Ozalid copies that look exactly like original typing.



Make full-color charts directly from pencil tracings. Now it's economical to sell, dramatize, visualize with all the colors of the rainbow.



For the first time file cards, records, can be reproduced in 25 seconds—directly from translucent cards. Manual transcription (and possibility of errors) is eliminated.



"Photographs" in 25 seconds—completely dry, ready for use. You keep film positives (made from any negative) on file. Make Ozalid Dryphotos whenever needed.



No printing plates required to make full-color displays like these. Every advertiser can save with new revolutionary Ozalid techniques.



Accountants always hoped for an easier way. Now, whole columns of figures from separate reports can be transferred to a composite report—positioned side by side, any way you like—without lifting a pen, without one error in transcription.



You'll find this unbelievably easy short cut—and 125 others—fully explained in "The Simplest Business System." See how you work this "office magic" with the new Ozalid Streamliner. Mail coupon today.

OZALID

Johnson City, N. Y.
Division of General Aniline & Film Corporation

Dept. 323

Gentlemen: Please send free copy of "The Simplest Business System" 323 and Ozalid prints of typed, drawn, printed and photographic material.

NAME _____

POSITION _____

COMPANY _____

ADDRESS _____

Ozalid in Canada—Hughes Owens Co., Ltd., Montreal

Everybody loves to see a fire



...but not in

His Own Plant

There's something exciting about a fire, but when it's your property, that's another story. Stop fires when they start with C-O-Two fire equipment. Prevent costly damage. C-O-Two is clean, modern, carbon dioxide fire protection. It's versatile; C-O-Two is used to protect electric and flammable liquid hazards of every size. It is non-conducting, non-deteriorating, harmless to the most delicate instruments.

See that your plant has C-O-Two protection. Check your dip tanks, bake ovens, spray booths, rheostats, switch panels, and other electric equipment. Don't overlook blueprint and record vaults. Then write us for a catalog or let one of our expert representatives help you plan complete C-O-Two fire protection.



C-O-TWO FIRE EQUIPMENT COMPANY
NEWARK 1

Sales and Service in the Principal Cities of United States and Canada
Affiliated with Pyrene Manufacturing Company

actually no discrepancy between two graphs.

Sirs:

The graph on wages vs. living in the Aug. 2 Business Week, page 92, gives a vivid impression that a worker is taking a beating because of rising prices.

On page 92 of your same issue the true picture, namely, that the earners' real income increased enormously during the war and has now dropped back somewhat. When the attention of the reader is focused on the moderate recession in real income he will naturally draw a wholly unwarranted conclusion regarding wages.

As long as the press, even such reliable magazines as Business Week, persists in misrepresenting and distorting facts by printing "half-truths" we can expect only a further and further drift away from sound economic principles. From whom is the public to get a true picture if not from the press? It is about time we all got together in educating John Q. Public to sound economic principles lest one of the days we lose not only our free enterprise system but all other privileges such as freedom of the press, that go with it.

L. E. Lloyd

Plastics Division,
Dow Chemical Co.,
Midland, Mich.

There was a very definite reason for our chart showing that, during the past two years, living costs advanced more rapidly than weekly earnings. Inasmuch as the unions will use this as a club to force new wage increases, Business Week would have been remiss in not warning employers that they are up against some new wage demands. Our function is to tell management men what they should expect in the economic life, and if any storms are brewing, from what direction they will come. If we failed to do this, and told our readers only about the pretty things in life, there would scarcely be any point in publishing.

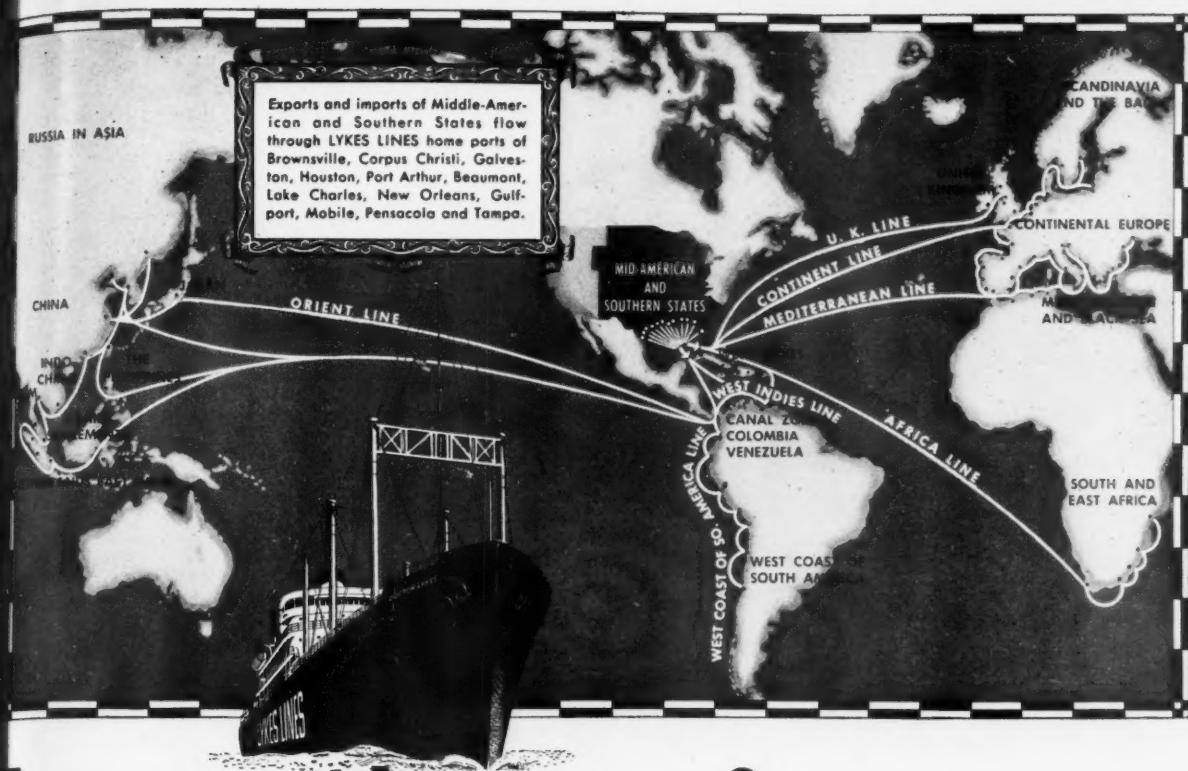
It is true, of course, that over the long haul both straight-time hourly earnings and total personal income are far ahead of the cost of living (BW-Aug. 23 '47, p15).

But when the unions go on a rampage for more money, they don't look at the long haul. They look at short term rates of change and use them as the excuse for demanding more money.

Sales Sparkled Plenty

Sirs:

We are, of course, grateful for your fine article about our Sparkle Plen-



Exporting - Importing?



.. LYKES SPANS THE WORLD!

American Flag Trade Routes

LYKES U. K. LINE — From Tampa, New Orleans, Houston, Galveston and other U. S. West Gulf ports to England, Scotland, Ireland and Wales.

LYKES CONTINENT LINE — From Tampa, New Orleans, Houston, Galveston and other U. S. West Gulf ports to Continental Europe, Scandinavia and the Baltic.

LYKES MEDITERRANEAN LINE — From U. S. Gulf and South Atlantic ports to Italy, Spain, Portugal, France, Greece, North Coast of Africa and other Mediterranean and Black Sea areas.

LYKES AFRICA LINE — From U. S. Gulf ports to South and East Africa.

LYKES ORIENT LINE — From U. S. Gulf ports to the Philippines, Japan, China, Straits Settlements, Netherlands East Indies and other Far Eastern areas.

LYKES WEST COAST OF SOUTH AMERICA LINE — From U. S. Gulf ports to Colombia, Ecuador, Peru and Chile.

LYKES WEST INDIES LINE — From Houston, Galveston, Lake Charles and other U. S. West Gulf ports to Cuba, Puerto Rico, Dominican Republic, Haiti, Aruba, Curacao, Venezuela, East Coast of Colombia and Canal Zone.

The above map shows how completely LYKES seven world trade routes can serve your export and import requirements. Shipments originating in Mid-America and the South flow directly and economically toward United States Gulf ports and LYKES modern fleet of fast American flag cargo vessels. These LYKES home ports are also strategically situated for the entry of products and raw materials from overseas.

Whether you are seizing today's opportunities to develop markets abroad or importing goods which other lands have to offer, LYKES new C-type vessels can provide you with the swift, dependable shipping facilities so vital to your plans. They are regularly scheduled between U. S. Gulf ports and the important trade centers of the world.

LIMITED PASSENGER ACCOMMODATIONS

Write for the new folder, "LYKES LINES AND GULF PORTS." Address Lykes Bros. Steamship Co., Inc., Dept. C New Orleans, La. Your inquiries concerning Export and Import ocean transportation will receive prompt, careful attention.

LYKES LINES

Lykes Bros. Steamship Co., Inc.

Offices at: NEW ORLEANS, HOUSTON, GALVESTON, NEW YORK, Baltimore, Beaumont, Chicago, Corpus Christi, Dallas, Gulfport, Kansas City, Lake Charles, Memphis, Milwaukee, Mobile, Port Arthur, St. Louis, Tampa, Washington, D. C.

OFFICES AND AGENTS IN PRINCIPAL WORLD PORTS



Why so much "Talk" about Materials Handling?

In every industry today, materials handling is a very common subject for discussion. Plant engineers realize, probably more clearly than ever before, that the application of well-designed conveying equipment is a great step toward increased production and greater operating economy. There isn't anything new about efficient materials handling. For nearly half a century Mathews Conveyers and Conveyer Systems have been serving production, saving time and creating economy for manufacturers throughout the United States and Canada.

The benefit of this long and varied experience and the facilities of three modern plants is available today to both light and heavy industry. That is why, when talk turns to modern materials handling, that Mathews Conveyer service is frequently brought into the discussion — and it is quite logical that it should be — for this conveyer service is complete from preliminary engineering to erection in the field. Whatever a load weighs — whether a few pounds or many tons — there is Mathews equipment which will handle it efficiently.



MATHEWS CONVEYER COMPANY
ELLWOOD CITY, PENNSYLVANIA

MATHEWS CONVEYER COMPANY WEST COAST

SAN CARLOS, CALIFORNIA

MATHEWS CONVEYER COMPANY, LTD.
PORT HOPE, ONTARIO

Engineering Offices or Sales Agencies in Principal American and Canadian Cities

doll [BW—Aug. 16 '47, p57]. However the last sentence in the article was overconservative that I really think it should be corrected.

It was not the first 100 days in which Gimbels sold over 15,000 dollars, was in the first ten days!

Incidentally, the Gimbel Philadelphia store sold twice as many the day that they put them on sale as the Gimbel New York store did. John Marsh in Boston, in a city with a trading area about one-sixth that of New York, sold 5,000 in the first week. Apparently, Sparkle Plenty is snowballing to even greater sales heights.

B. F. Michalek
V.-P., Ideal Novelty & Toy Co.,
Hollis 7, N. Y.

Ads From the Air

Sirs:

We were particularly interested in your photo of the big marker that points the way to the Boston Air [BW—Aug. 16 '47, p20]. This brought to our mind the campaign that we started in the early part of 1929 to assist in air navigation.

We had postal cards printed and distributed them to the various airports, and they were returned to us with information as to barns in the vicinities that would make good air markers. Upon receipt of this information, we used the roofs of our giant Mail Pouch signs, giving the name of the airport, the distance and direction as shown on the enclosed photograph.



Much progress has been made in aviation since our assisting the fliers in determining location along the routes. We did receive, at that time, many favorable comments from the pilots in connection with the assistance given them.

W. J. Franks
V.-P., Mail Pouch Tobacco Co.,
Wheeling, W. Va.

Sirs:

In reading the text under your Aug. 16 picture of the air marker on the roof of the First National Bank of Boston, one might think that this marker was installed or financed by the Civil Aeronautics Administration.

This inference is not made direct-

of course, but we believe it is caused by the use of the word "official" instead of "standard," which is generally used to describe a marker which is laid out in accordance with the standards established by the CAA.

The First National Bank marker, and others in this part of the country, were laid out and installed by our company, which devotes all its activities to the design and construction of standard air markers, in porcelain enamel and other materials as well as paint. . . .

Any business may install a marker with its name or product name as advertising matter, so long as the advertising text does not exceed a certain percentage of the total area of the marker.

Christian E. Born
Pres., Air Markings, Inc.,
Boston 9, Mass.

Power—How Short?

Sirs:

I read with interest the article entitled "U. S. Power Shortage Looms" [BW-Aug. 9 '47, p17] . . . The industry's present opinion is that there will not be a power shortage this year or thereafter. The year is now far enough advanced so that the ability to carry the load this coming December is already reasonably apparent.

During the past year the power industry has experienced a very large increase in power demand, which has considerably reduced its margin of spare capacity, and it is the industry's judgment that in the next few years there will be a further large increase of such demand. In anticipation of this, the electric utility companies two years ago launched an unusually large construction program. . . .

I wonder, when your writer speaks about brownouts and about lights burning brightly only in some cities, if he comprehends that a power shortage, which his informant apprehends in some areas, would merely mean that for possibly 30 minutes on three or four days during the peak load season, it would be necessary for the power company, in accordance with previous arrangement, to drop off some of the pumping loads, such as water storage, which can be interrupted a short time without hurt, and perhaps a few of the other larger loads that could be cut off for a time without important loss to the customer. That is what would happen if the power demand edged up over the available capacity, but as I said before, it is the industry's present judgment that this will not happen except possibly in the case of some small isolated systems. Most of them are interconnected with the nearby larger systems.

It seems to me significant that at



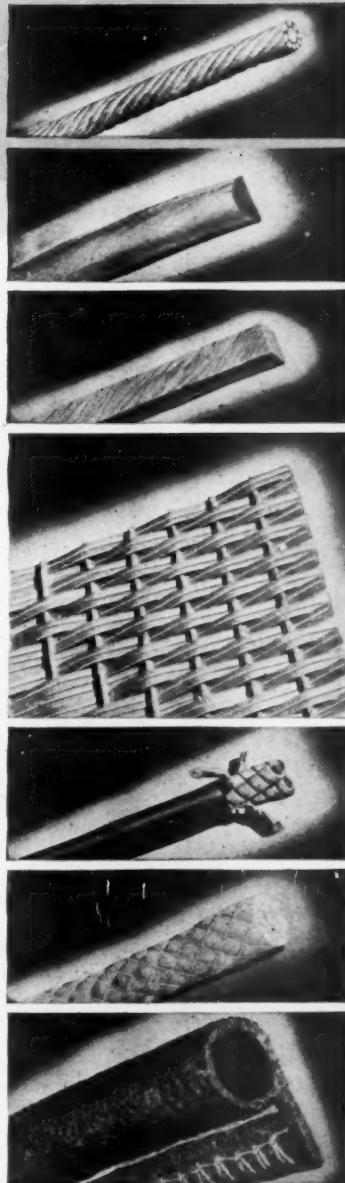
Typical Twitchell Materials That Save Time and Money for Manufacturers

E. W. TWITCHELL supplies these varied materials to American manufacturers in dozens of businesses . . . electrical, automotive, shipbuilding, foundry, toy, hat, luggage, rug, upholstering, shoe, bed spring, etc. Most of them report manufacturing is easier and quicker. Products are better.

These Twitchell materials are precision-made to each manufacturer's own specifications. They can be water-proofed, fire-proofed, glued, sized, lacquered, or otherwise specially treated. They are naturally rot-resistant. They take bright colors evenly and quickly, which often increases the salability of the finished product. They are smooth and easy to handle. They have bulk. They are uniform in diameter.

If you're in manufacturing, you ought to know this new basic material . . . its many different forms . . . its many possible characteristics.

How can you use Twitchell fibre? What shape should it be? We'll be glad to try to work out the answers for you. Just write E. W. TWITCHELL, INC., Third and Somerset Streets, Philadelphia 33, Pa.



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MICHAELS BRONZE PLAQUES



Honor the men and women who served in the last world war by perpetuating their memories in imperishable bronze. Made of virtually indestructible metal, Michaels Bronze Memorials endure through the ages, and become more beautiful with the passing of time. They are made of genuine bronze, with all lettering, borders and ornaments hand-chased and burnished for contrast. Illustration shows one of many standard patterns, but plaques may be made up in any design and size to meet your requirement. Tell us what you have in mind . . . the number of names, as well as all the other wording you wish to use on the memorial, and we shall be glad to submit sketches and quote prices. Fully illustrated folder sent on request.

THE MICHAELS ART BRONZE COMPANY
232 Scott St., Covington, Ky.

Member of the National Memorial Bronze Manufacturers Association

"His staff simply worships him since he installed General Electric Water Coolers."

Want to boost employee morale? General Electric Water Coolers will help. They cost so little to operate, too. Ask your

General Electric Dealer for full information. *General Electric Company, Air Conditioning Dept., Section 7869, Bloomfield, N. J.*

GENERAL ELECTRIC
Water Coolers

the same time the electric industry is carrying forward a large construction program it is actively engaged with several extensive sales programs designed to promote and stimulate greatly increased use of electricity for residential, commercial, industrial, and agricultural purposes. They are not losing sight of the job of promoting the sales of electricity to furnish load in the months and years ahead for the generating plants they are installing.

H. S. Bennington

Managing Director,
Edison Electric Institute
New York 17, N. Y.

We cannot quite agree that the year is now far enough advanced so that the ability of all major power systems to carry the load this coming winter (in the manner to which the power companies have so long and well educated their customers) is so apparent. We find, for instance, voltage reductions of 5% in one middle-west system, rationing of power for air conditioning in Dallas, plus peaks 20% in excess of any previously experienced for a large power system where daily operation continues with a reserve of less than 1% of capacity.

It is quite true that the wording of the paragraph in our story about the possibilities of a "brownout" is somewhat strongly put. The steps in carrying over peaks, as we understand present practice, include: (1) reduction of voltage; (2) voluntary curtailment of nonessential industrial load; (3) more or less urgent steps toward curtailment of sign lighting and ornamental lighting during peak hours. The first two steps are already being practiced in more than one local area served by large, well-established systems. Our point was that the third (or a third) step may become necessary in some areas when winter comes. That, of course, remains to be seen. Our emphasis was intended to rest on the acuteness of the shortage rather than on the alternatives for solving it.

The Sticky Issue

In your article, "New Issues Sticky" [BW—Aug. 2 '47, p57], you say: "Large portions of . . . \$29-million of 30-year Pacific Lighting 3½'s, offered last week at . . . 102.91% of par, still are unsold."

Pacific Lighting Corp. has not to my knowledge made an offer of bonds for some years, and I am wondering what issuer is meant to be named.

J. W. Haines

Haskins & Sells
San Francisco 4, Calif.

Sorry, we should have said Pacific Power & Light.

SPECIALISTS IN FITTING TRUCKS TO EVERY JOB



KB-8—for distribution of bituminous material.



KBR-11—for transport of coal.



KBR-12—Truck-Tractor—for hauling heavy machinery.

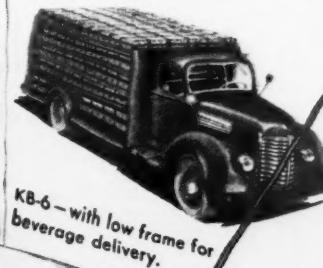
KB-8-F—for mixing and transporting concrete.



THIS EMBLEM



IDENTIFIES GREAT TRUCKS



KB-6—with low frame for beverage delivery.



W-6564-OH—Truck-Tractor
for heavy log transport.



Few hauling jobs are alike. Trucks must be *specialized*. International Dealers and Branches are specialists in truck hauling problems.

There are 21 basic models in the International Line. Engineers at International's four great truck works are masters at *specializing* these 21 models into more than 1,000 different types of trucks.

That's one reason why, for each of the past 15 years, more new heavy-duty Internationals have been registered by American users than any other make of truck.

Here are two others:

1. The International Truck Point Rating System, which enables International Dealers and Branches to determine the payload that may be economically carried by a given truck in any specific operation.
2. *Specialized* truck service by International Dealers and Branches. For any truck problem, see your International Dealer or Branch.

40TH ANNIVERSARY OF INTERNATIONAL TRUCKS
1907-1947—Forty Years of International Truck Service to Industry, Commerce and Agriculture

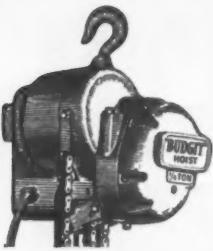


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FARMALL TRACTORS AND MACHINES
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INTERNATIONAL Trucks



You can buy Time!

If you can save ten minutes or more every hour on the job by purchasing a 'Budgit' Electric Hoist, isn't that like buying "time" at bargain prices? For the 'Budgit' saves these minutes-per-hour every working hour of its long life. It pays for itself over and over again. Workers like 'Budgit' Hoists because they make the work so much easier. No installation charges. Current costs are trifling.

Write for Bulletin No. 371.



'BUDGIT' Hoists

MANNING, MAXWELL & MOORE, INC.
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Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

HERE'S YOUR WEST COAST PLANT SITE

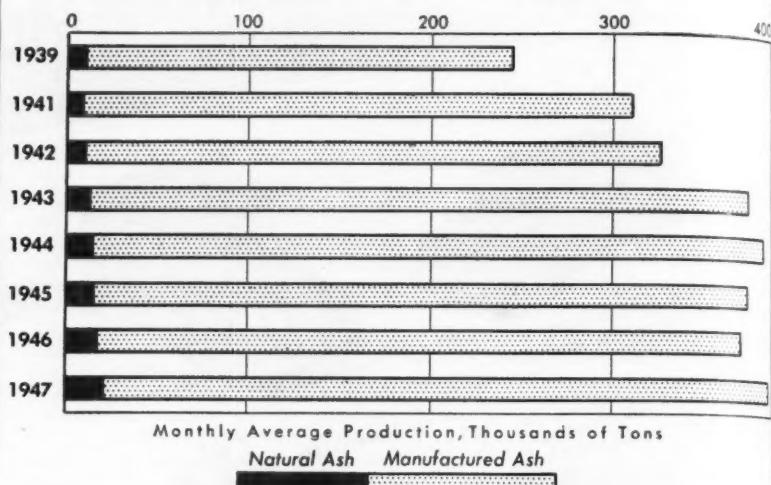
Humboldt Bay Area *centers* the West Coast. This booklet gives you the facts...analyzes Markets, Transportation, Power, Raw Materials, Labors' outstanding record of Production and Cooperation. It tells you about the low cost construction...year 'round plant operation...and outdoor living made possible by the mild climate. Write for your copy today.



HUMBOLDT BAY AREA
HUMBOLDT COUNTY
CALIFORNIA
CHAMBER OF COMMERCE • EUREKA, CALIF.

PRODUCTION

Output of soda ash is rising—but there still isn't enough



Data: Bureau of the Census

© BUSINESS WEEK

Soda Ash Outlook Better

Demand still exceeds supply, but production is increasing steadily. Natural ash grows in importance, though manufactured ash is by far the biggest source. Westvaco opens up new deposit.

Soda ash is still short. But prospects for the near future look good. Chances are that there will be no closings of chemical or manufacturing plants this year due to lack of ash supply (BW—Oct. 12 '46, p32).

• **Two Factors**—That's the feeling of the men in the chemical industry. They base their optimism on two factors: (1) Production of manufactured ash is up (chart, above); and (2) there's a steady rise in natural ash output.

Natural soda ash at present represents only about 5% of total production. But it is significant that this proportion is more than twice that of 1939. And further expansion is being planned.

• **New Source**—This week, for instance, William B. Thom, president of Westvaco Chlorine Products Corp., disclosed plans for relatively large pilot-plant operations at a new soda ash "lode" at Westvaco, Wyo. They will begin in October; by January, 1949, full-scale operations there are expected.

Westvaco is eyeing markets for this natural ash as far east as Chicago, as far west as San Francisco. The deposit it is banking on amounts to several million tons. But soda ash in the ground is of no use to a chemical plant; it will be at least a year before quan-

titly deliveries from Wyoming can be expected.

• **Importance**—Soda ash (sodium carbonate) is one of the most important intermediate chemicals—it ranks right up near sulphuric acid in this respect. A list of basic manufacturers using the chemical reads like a roll-call of American industry: glass, soap, cleansers, pulp and paper, petroleum, textiles, nonferrous metals (box, page 57).

There are two sources of supply for soda ash: common salt and natural de-

posits. Two methods of manufacturing are now in use: the Solvay (or ammonium-soda) method, and the electrolytic method. The Solvay method furnishes the bulk of the manufactured product; the electrolytic method a very small part (less than 1% of the total ash available).

• **Principal Process**—In the Solvay process ammonia, carbon dioxide, and water combine to form ammonium bicarbonate. When common salt is added, sodium bicarbonate and ammonium chloride result. Heat is used in the next step (called calcining) to transform the sodium bicarbonate into sodium carbonate. The ammonia is recovered and recycled.

This process demands that soda ash

Distribution of Soda Ash Consumption in U. S.

(Thousands of short tons)

Consuming industries	1939	1944	1945	1946
Glass	744	1,290	1,320	1,400
Soap	215	162	150	120
Caustic and bicarbonate	810	1,033	1,114	1,128
All other chemicals	620	1,025	960	910
Cleansers and modified sodas	130	100	100	125
Pulp and paper	116	170	175	190
Water softeners	28	110	100	90
Petroleum refining	11	22	24	20
Textiles	43	61	68	77
Nonferrous metals	..	320	200	140
Exports	80	79	70	70
Miscellaneous	164	320	290	212
TOTAL	2,961	4,693	4,581	4,490

Source of estimates: Chemical Engineering

plants be located near salt deposits—either rock salt or brine. They must also have access to limestone deposits as a carbon dioxide source.

• Plants—The first domestic plant to utilize the method was set up in 1881 by the Solvay Process Co. at Syracuse, N. Y. Other plants are Solvay's at Baton Rouge, La.; Wyandotte Chemical Corp. at Wyandotte, Mich. (BW—Aug. 17 '46, p70); Mathieson Alkali Works at Saltville, Va., and Lake Charles, La.; Columbia Chemicals

Division of Pittsburgh Plate Glass Corp. at Barberton, Ohio; Diamond Alkali at Painesville, Ohio; and Southern Alkali Corp. at Corpus Christi, Tex.

The southern plants were developed to meet the demands of expanding southern glass, paper and pulp, and soap industries.

The other process for manufacturing—using electrolysis—passes an electric current through a saturated salt solution. Sodium hydroxide is formed around the cathode (the negative ter-



MIDGET MACHINES USHER FOR MONARCH

Pointing the way for visitors to Monarch Machine Tool Co.'s exhibits at the Chicago Machine Tool Show will be a 19-ft. model guide. A small-scale replica of the 31 machines being shown, it indicates each machine's exact location in the booth. Getting a preview are (left to right) Wendell E. Whipp, chairman of the board at Monarch, Jerome A. Raterman, president, other company executives.

NOW! MAKE PHOTO-COPIES OF ANYTHING

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Photo-Copier
\$55
Copies up to
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Any Boy or Girl Can Operate It! No film, no camera, no focusing—no darkroom or technical knowledge needed. It's so easy that anyone can learn to operate it in a few minutes!

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Send illustrated folder showing how APECO saves time, money, and labor.

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HOW MUCH POWER

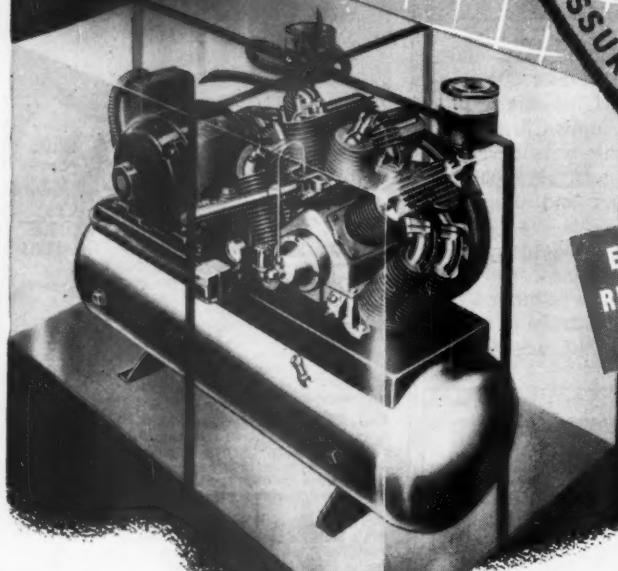
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CENTRAL UNIT

AIR PRESSURE DROP

EVER
REACHES
HERE?

POINT OF
USE



Decentralize Air Supply

WITH WAYNE DEPARTMENTAL UNITS
FOR REAL ECONOMY

ELIMINATE LOSSES in pressure and volume due to friction and leaks in long compressed air lines by departmentalizing air compressors in your plant with Wayne "Packaged Units of Power" installed at the point of use. Then you have all the air you need where you need it, at lowest cost. Write today for booklet.

THE WAYNE PUMP COMPANY
FORT WAYNE 4, INDIANA

WAYNE AIR COMPRESSORS
GASOLINE PUMPS • CAR WASHERS • AIR SCALES • REELS • LIFTS



minal). When carbon dioxide is bubbled into the solution around the cathode, sodium bicarbonate is precipitated, ready for drying and calcining. West Virginia Pulp & Paper Co. operates three plants with this process to get soda ash for paper making.

• **Natural Ash**—Principal sources of natural soda ash, aside from the Westvaco holdings, are at Owens Lake and Searles Lake in California. American Potash & Chemical Corp. and West End Chemical Co. operate Searles Lake deposits. Three plants are exploiting Owens Lake: Natural Ash Soda Products Co. (owned by Wyandotte) at Keeler, Calif.; Pacific Alkali Co. (owned by Pittsburgh Plate) at Bartlett, Calif.; and a war-built Permanente Metals Corp. natural-ash plant near Lone Pine, Calif.

At the Permanente plant, brine rich in sodium carbonate is pumped from wells into storage tanks. It then travels through heat exchangers into carbonating towers which change its salt content into sodium bicarbonate or carbonate. After thickening into cake, it is calcined.

BENDIX EXPANDS

Bendix Aviation Corp. is broadening its activities in the production of filters. It has acquired the assets of Skinner Purifiers, Inc., of Detroit, whose current annual business is about \$1-million. The purchase lifts the number of Bendix divisions to 14, excluding subsidiaries. Ralph Skinner, who organized the Skinner company in 1919, will remain with the division in an advisory capacity.

The Zenith division of Bendix has been producing metal filters for several years. Skinner filters, using resin-treated paper, can screen out particles as small as one-half micron (one micron equals 38 millionths of an inch).

P. S.

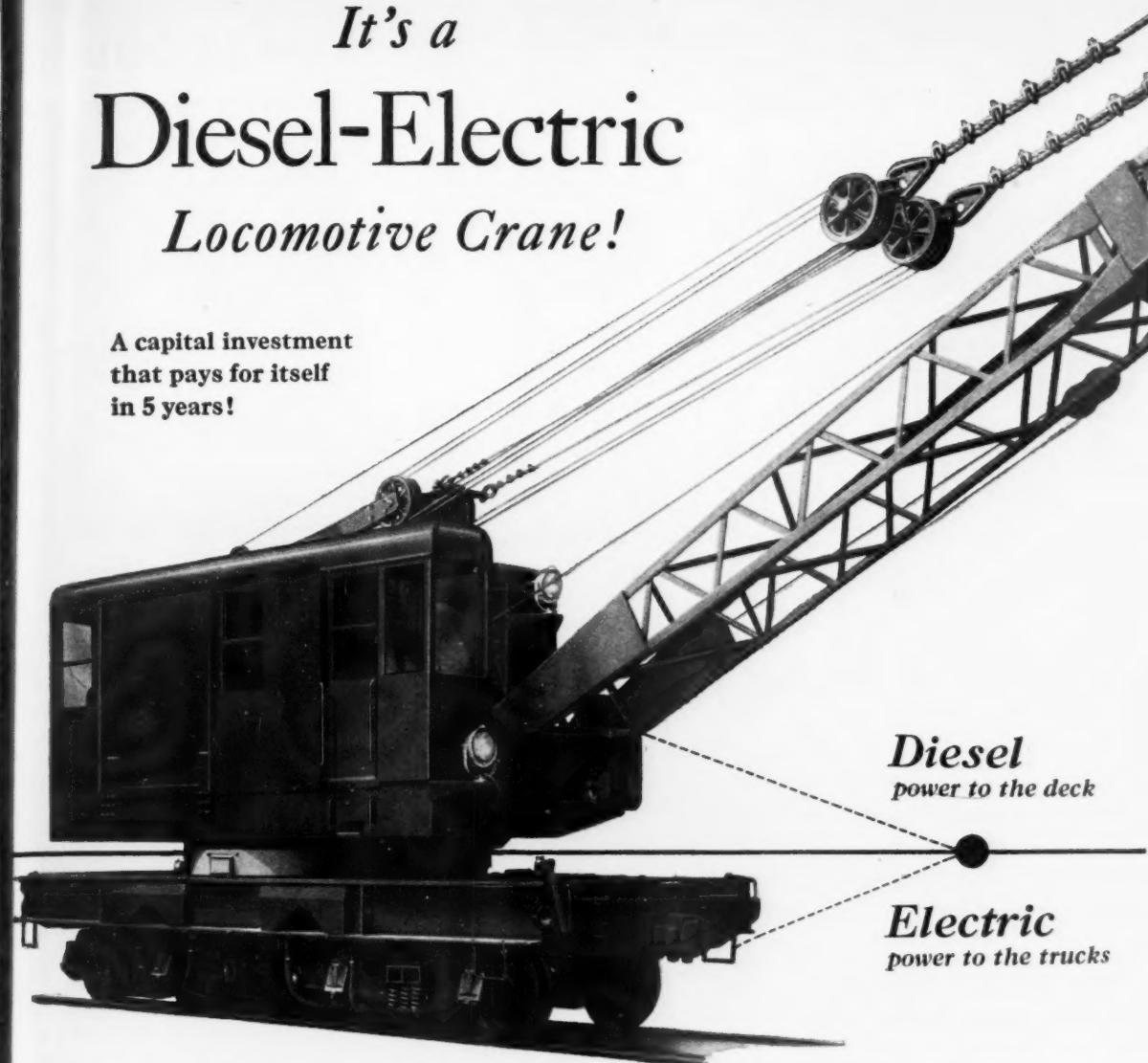
Manufacturing rights to a new lightweight Swiss tractor have been acquired by Frazer Farm Equipment Co., division of Graham-Paige Motors Corp.

A three-course program on systems and procedures that improve business operations is planned for the fall session at New York University. H. Kenneth Marks, president of the Systems & Procedures Assn., headed the advisory committee which helped plan the course.

Silicon carbide furnaces and rollers are being installed in an Indiana plant of Crucible Steel Co. by the Gas Machinery Co. of Cleveland. The rollers cored for water cooling, withstand heat as high as 2,475 F indefinitely without sag, it is said.

It's a
**Diesel-Electric
Locomotive Crane!**

**A capital investment
that pays for itself
in 5 years!**



The American Dieselectric, a completely new locomotive crane, is unique as a capital investment. Performance records in many industries prove that this crane *earns back its original cost in five years*.

Here's why the Dieselectric does so much work... slashes crane maintenance 25% to 50%. Direct diesel drive to the deck provides powerful, low-cost energy for hoisting and swinging loads up to 40 tons. Electric power to the wheels provides smooth, jerk-proof power... maximum draw-bar pull at the instant of starting. Precise air-controls and wide-angle vision enable the operator to manage his load with minimum effort, assuring higher productivity every hour of the day.

Who's the man in your organization who should have specifications and details about the American Dieselectric? Just put his name on the coupon and we'll send him our new catalog giving all the facts.

CLEAN, EFFICIENT DECK makes maintenance easy. All machinery compactly arranged, without pyramiding; all safely enclosed.

FULL VISION CAB gives operator unobstructed view of his load at all times. Finger-tip air controls and entire cab layout reduce operator-fatigue.

ENCLOSED ROLLER-BEARING TURNTABLE distributes stresses and shocks on 27 live rollers, arranged in 6-foot diameter. Interlocking gib ring keeps dirt and grit out.

Mail this Coupon for Descriptive Catalog

AMERICAN HOIST AND DERRICK CO.
73 South Robert Street, St. Paul, Minnesota

Please send _____ copies of your new catalog
describing AMERICAN Dieselectric Locomotive Crane.

Name _____

Address _____

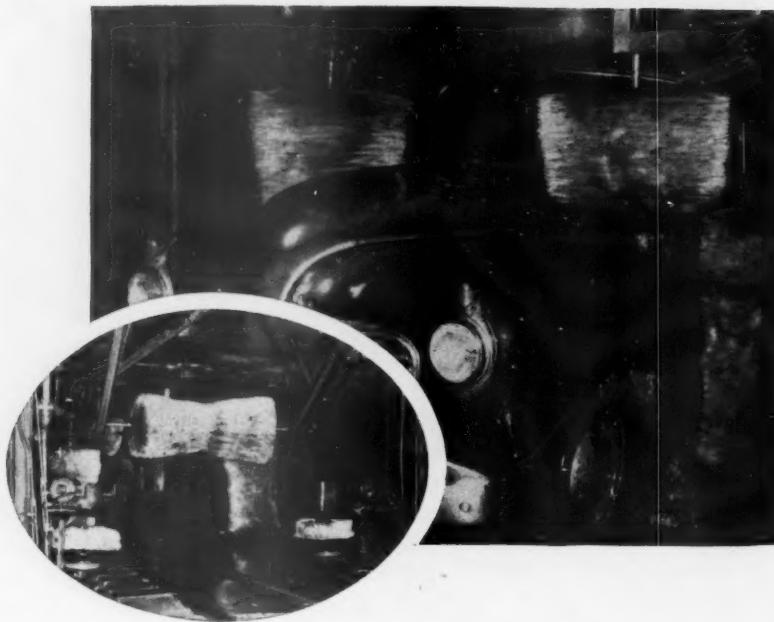
City _____ Zone _____ State _____

**American Hoist
and DERRICK COMPANY**

St. Paul 1, Minnesota

Plant No. 2: So. Kearny, N.J.

Sales Offices: NEW YORK • PITTSBURGH • CHICAGO • NEW ORLEANS • SAN FRANCISCO



CARS GET BRUSH BATH IN 90 SECONDS

WILLIE'S idea of a fast bath and mom's conception of a thorough one are both combined in this new, semi-automatic car washing machine designed and built by Minit-Man, Inc., Detroit, Michigan.

The trick is done with brushes—not mirrors. Attached to a chain conveyor, the car moves through a section where seven Osborn Ringlock rotary fibre brushes, each 27 inches in diameter, do the major scrubbing job. Sides, hood, top, fenders, wheels and hub caps—all are sprayed and scrubbed simultaneously. Each brush is individually driven and may be adjusted for all widths of cars.

On emerging from the bath, car is dried by air under pressure while finishing touches are applied to front grille and back end. Actual washing time—45 seconds. Total elapsed time (including vacuuming of car interior)—90 seconds.

This same speed and efficiency of brushing is employed daily by industry to save dollars and improve products. Weld cleaning, removing burrs, finishing, roughing, polishing—all are jobs that the right brush will do better, cheaper.

And the right man to analyze your brushing needs is the Osborn Sales Engineer. Make it a definite date now! Write—

THE OSBORN MANUFACTURING COMPANY

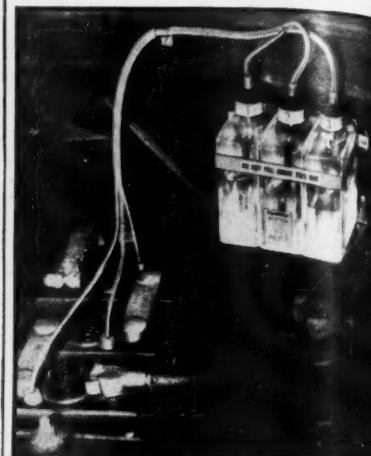
5401 Hamilton Avenue

Cleveland, Ohio



WORLD'S LARGEST MANUFACTURER OF BRUSHES FOR INDUSTRY

NEW PRODUCTS



Automatic Battery Filler

Aqualator maintains proper water supply in automobile or truck batteries, requires filling only twice a year. The unit functions automatically, allows a visible check on water supply by merely raising the engine hood.

The device has three hermetically sealed containers which are mounted under the hood on the engine side of the firewall. Three feeder tubes run from the water-filled containers to each battery cell cover; they are inserted in the battery through special bored holes. Radiated engine heat causes expansion of air in the sealed containers. This forces water through the tubes and into the battery cells. When the water level reaches the end of the feeder tube, counter-pressure stops the flow of water.

The maker, Embree Mfg. Co., 10 West Maylag Pl., Elizabeth 4, N. J., says Aqualator operates equally well above or below the battery level. Containers are said to be safe from freezing, breakage in temperatures as low as -50 F.

Availability: immediate.

Steam for Diesels

Steam is still used on diesel trains—for heating cars and supplying hot water. Designed for use on diesel-electric equipment is a new steam generator developed by Vapor Car Heating Co., 4509 W. 16 St., Chicago. The unit uses ordinary grade fuel oil, produces enough steam to supply an eight-car train.

The generator is compactly built. It requires connections only to water, oil, and electric supply, plus a smoke pipe to carry off combustion waste. It generates steam only as it is used, produces an equivalent of 4,340,000 ft. lb. of power in one hour. The unit operates by remote control, is designed to re-

ATMOSPHERE...

MADE TO ORDER

Custom-Made Air . . . for Squibb Institute
for Medical Research . . . or Your Drug Store

For any place where people gather, work, shop, eat or go for entertainment, Worthington provides air that's just right . . . cool enough, moist enough, circulated enough, fresh and clean.

Worthington-conditioned air is good for business and fine for your employees. Whether it's the Research Institute of E. R. Squibb & Sons . . . a manufacturing plant . . . a doctor's office . . . or a neighborhood drug store . . . you can expect better air conditioning from Worthington.

More of the vital "innards" in Worthington Air Conditioning equipment—compressors, condensers, engines, turbines, pumps—are Worthington-built, assuring you accurate control, low-cost quiet operation, longer trouble-free life. More than 50 years of air conditioning experience means there's more worth in Worthington.

WORTHINGTON



KAPRA

AIR CONDITIONING AND REFRIGERATION

A7-2

CALL YOUR LOCAL WORTHINGTON DISTRIBUTOR LISTED IN CLASSIFIED TELEPHONE BOOK. WORTHINGTON
PUMP AND MACHINERY CORPORATION, AIR CONDITIONING AND REFRIGERATION DIVISION, HARRISON, N. J.



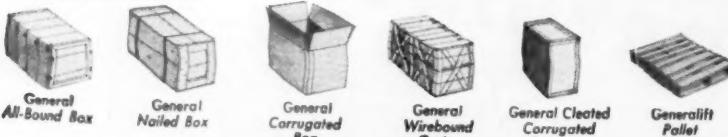
Generally Speaking-

"THE CONTAINER IS PART OF THE PRODUCT"

• Our engineers have had many years of experience in the redesign of shipping containers. Result is that General Engineered Containers are compact, light in weight, and extra strong. They are designed specifically to the product. They're actually "a Part of the Product."

Whatever your packaging need may be, you'll find the current issue of "The General Box" packed with practical information. Why not write for it today?

IMPORTANT NOTICE:
New plants and expanded production facilities are now in full operation. Your inquiry or order will receive prompt attention.



ENGINEERED SHIPPING CONTAINERS

25 YEARS YOUNG

1922-1947

25 years' experience in designing better containers for all industry.

General Box Company

GENERAL OFFICES: 502 N. Dearborn St., Chicago 10, Ill.

DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati,

Detroit, East St. Louis, Kansas City, Louisville, Milwaukee,

New Orleans, Sheboygan, Winchendon, Natick.

Continental Box Company, Inc.

Houston, Dallas.

quire a minimum of attention and maintenance.

Availability: 30-60 days after order.



Table Television

Farnsworth Television & Radio Corp., Fort Wayne, Ind., is making a compact television receiver that fits on the average-size end table. The cabinet, 16 in. wide and 22 in. long, tapers from a height of 18 in. in front to 13 in. behind. Picture size is 52 sq. in. The set uses a 10-in. cathode-ray tube, can be adapted to standard AM reception. The receiver is finished in blonde or mahogany.

Availability: September for New York and Philadelphia; other markets later this year.



Portable Projector

Movies are a help to any promotion or sales campaign; for personnel training courses they are often indispensable. Victor Animatograph Corp., Davenport, Iowa, has a 16-mm. portable sound projector that can be moved easily from office to office. The machine, called Lite-Weight, is housed in an aluminum carrying case. The com-

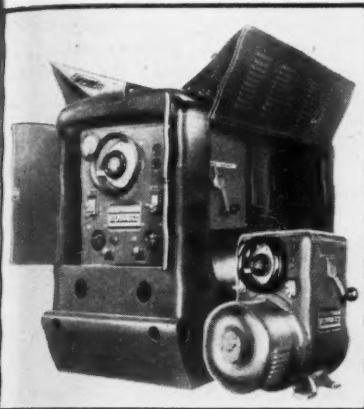
plete unit, including a demountable speaker, weighs only 33 lb. The machine can be used to project still pictures, can be reversed, handles either sound or silent films in reels up to 2,000 ft.

Availability: deliveries in September.

Brake Glue

Plastilock 601, a synthetic adhesive used to anchor the lining to brake shoes, has a shear-resistance strength said to be more than twice as great as that of brass rivets. A development of B. F. Goodrich Co., Akron, Ohio, the glue lengthens the life of the lining by permitting wear down to the brake shoe itself instead of only to the level of the fastening rivets.

Availability: deliveries in October.



Welder-Generator

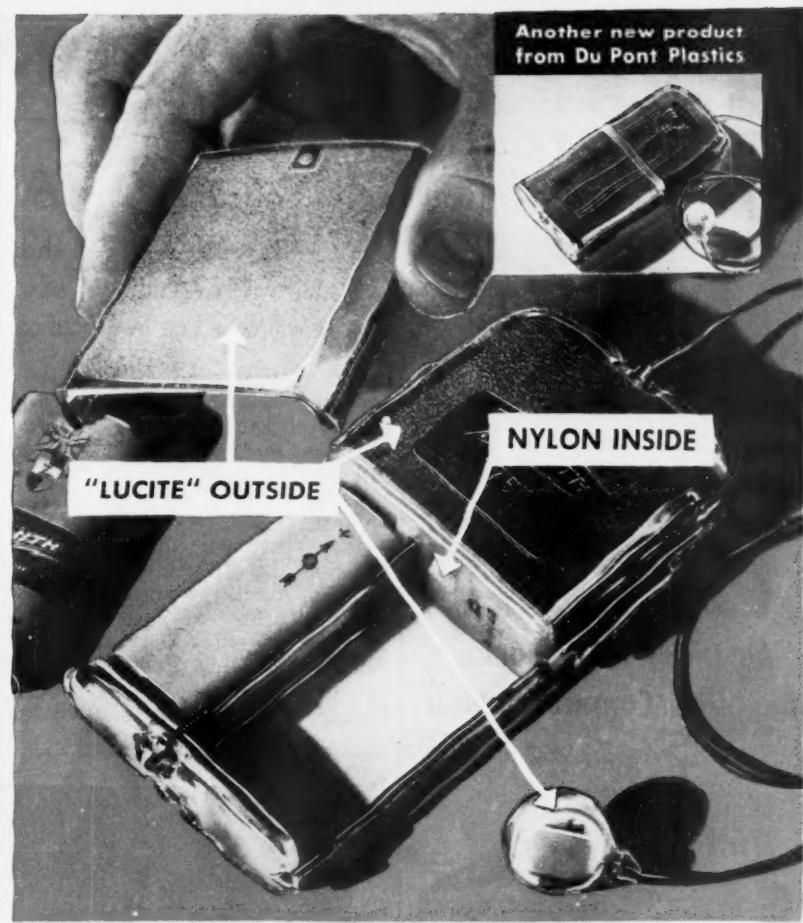
A combination arc welder and power unit is made by Hobart Bros. Co., Troy, Ohio. The machine operates as a 200-amp. rotary arc welder or as a 52-amp., 120-v. single-phase power unit. The operator can thus alternately weld and use power tools from the same power source. The unit is light in weight, runs on a single generator driven by a gasoline engine; a changeover switch converts it from welding to generating.

Availability: immediate.

Gasket

Chemiseal is a thermoplastic gasket that resists the chemical action of acids, bases, ketones, and solvents. United States Casket Co., N. 10 St., Camden, N. J., developed the product, which is made of polytetrafluoroethylene plastic (BW-Apr. 27 '46, p21). The packings are known to react only to melted sodium and fluorine under pressure. The gasket will not stick to flanges or become coated with process materials. It is said to function effectively under temperatures ranging from -200 F to 500 F.

Availability: 45-60 days.



NOW MORE PEOPLE WILL HEAR FROM DU PONT PLASTICS

GOOD NEWS to thousands is Zenith's new low-cost hearing aid. It's tops in quality and performance . . . moderate in price. And it's made with DuPont nylon and "Lucite" acrylic resin.

The case of "Lucite" assures dependable protection—lasting beauty—resistance to battery salts. Nylon is used as the inner supporting piece because of its strength, resistance to corrosive salts, and ability to withstand high temperatures during manufacture.

Today hundreds of manufacturers are choosing "Lucite" for its ease of working, resistance to breakage, and beauty, crystal-clear or colored . . . and DuPont nylon, too, where specifications require toughness, resilience, and resistance to oils, gases, moisture, and heat. Both of these DuPont plastics are easy and economical to fabricate or mold.

There may be a place for a DuPont plastic in *your* business . . . as a means of developing a new product or improving an old one. Write today for literature. E. I. duPont de Nemours & Co. (Inc.), Plastics Dept., Room 609, Arlington, N. J.

Zenith "75" hearing aid manufactured by Zenith Radio Corporation, Chicago, Illinois





WITH



America's most Wanted
Business Communication
Systems



Business efficiency begins on executive desks! And that's exactly where AMPLICALL belongs. This distinguished new Business Communication instrument is the hard-working, fast-action tool that puts efficiency right on the important desks throughout your business.

Just the touch of a button gives you instant speaking contact with any or all of your key men. All communication—within and between departments—is sped quickly, simply and dependably over the AMPLICALL Electronic network. For a more productive and efficient organization, let AMPLICALL go to work for you. It will pay for itself over and over again. Write today for the show-how.

Rauland

THE RAULAND CORPORATION
4249 N. Knox Ave., Chicago 41, Illinois

Send complete details on the New AMPLICALL.
 Send your representative. No obligation.

Name.....

Company.....

Address.....

City..... State.....

MARKETING

Newspaper Advertising Soars

Despite newsprint shortage, total lineage was up 38% in first half of 1947; national ads set new record dollarwise, but accounts will face heavier local competition for space this fall.

Back in prewar days, many a newspaper publisher looked enviously—often bitterly—at figures on radio advertising.

During the war the publishers had little time to spend in envy. They were too busy trying to explain to an army of space buyers that the newsprint shortage prevented the papers from taking all the ads offered.

- **Good Reading**—Newsprint is still painfully tight, and many publishers still have to ration advertising space. But if they found time for statistics this week, they discovered pleasant reading. For Dr. Hans Zeisel of Mc-

Cann Erickson, Inc., advertising agency, estimated in the trade publication Printers Ink:

- Newspaper advertising lineage in the first half of 1947 jumped 38% from 1946.
- Dollar sales of radio time slipped 4% in the same period.

Publishers can't recall such a pleasant competitive picture since radio started to elbow into the advertising scene.

- **Estimates**—Basing its estimates on Zeisel's figures, the Bureau of Advertising of the American Newspaper Pub-



BRIGHT PROSPECTS for the lumber dealer in quest of new markets.

The Old Lumber Yard Takes on Glamour

You would hardly spot in the gleaming facade of Cullen Lumber Co.'s new Oklahoma City store the old-time lumberyard—the kind you used to associate with railroad tracks. The lumber business has a new veneer these days, and it's not made of wood. It's a composite of neon lights, plate glass—and a wide variety of merchandise.

For change of facade is matched by an even more striking change in stock. You can still buy lumber at Cullen's. But big displays of household appliances, hardware, tools, and paints signal the lumber dealer's entry into new fields. The expansion is timely—as labor costs for home repairs soar, more people are doing their own repair jobs.

ers Assn. has developed some interesting facts about national advertising in newspapers: "Despite the continuing shortage of newsprint, national advertisers are investing in U. S. daily newspapers at the rate of \$350-million a year." That's \$80-million above 1946's record \$270-million.

The bureau was also highly optimistic about the future: "The gains being made by daily newspapers in national advertising in the face of continued paper shortages are concrete evidence that newspaper difficulties are not necessarily a serious hindrance to any advertiser or agency planning and placing newspaper campaigns."

Advice—To national advertisers who want to get into the newspapers despite the difficulties that do exist, the bureau offered some specific advice:

Newspapers should be given in advance all details concerning size and frequency of insertion.

Newspapers should be given the opportunity to set optional dates for insertion.

Maximum-space limitations of newspapers hard hit by newsprint shortages should be determined before campaigns are put into production.

Local Competition—This advice may all come in handy. It looks as though national accounts are going to face increasing competition from local advertisers for newspaper space during the rest of this year. There are two reasons:

1) Earlier in 1947, many large department stores cut down on their copy. If they made arrangements then to extra copy this fall.

2) The increased use of cooperative advertising (the expense shared by manufacturer and retailer) in the food and appliance industries is practically assured.

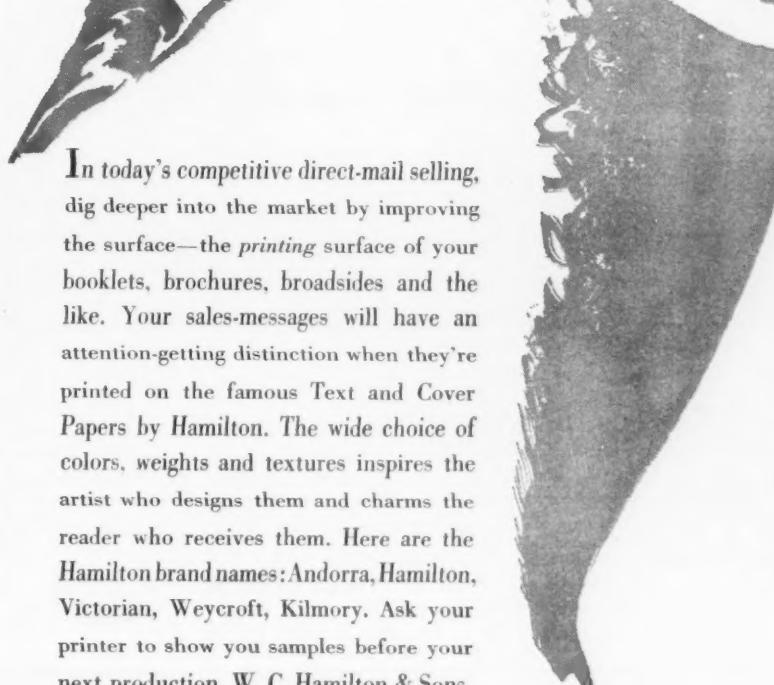
This whole field of cooperative advertising nearly dried up during the war. The appliance manufacturers, however, are always big users of this technique; so that their products are coming back to good supply, it is inevitable that these ads will be increasingly used. And recent private survey indicated that 50% of the food manufacturers interviewed intended to use cooperative advertising this fall or winter.

Gains General—This year's gain in newspaper lineage is spread among most all advertising classifications, according to a Media Records survey of papers in 52 cities. Financial advertising—down 11% from 1946—was the big loser in the first half of 1947, by media's figures.

General national advertising lineage was up 18%, automotive 81%, retail 7%, classified 16%.

Meanwhile, the big radio networks expect better business in the last half of the year.

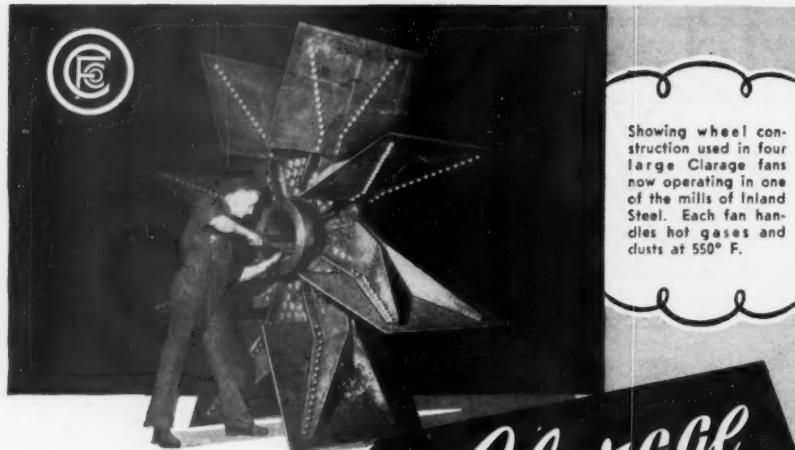
*Surfaces
that sell*



In today's competitive direct-mail selling, dig deeper into the market by improving the surface—the *printing* surface of your booklets, brochures, broadsides and the like. Your sales-messages will have an attention-getting distinction when they're printed on the famous Text and Cover Papers by Hamilton. The wide choice of colors, weights and textures inspires the artist who designs them and charms the reader who receives them. Here are the Hamilton brand names: Andorra, Hamilton, Victorian, Weycroft, Kilmory. Ask your printer to show you samples before your next production. W. C. Hamilton & Sons, Miquon, Pennsylvania . . . Offices in New York, Chicago, San Francisco.

HAMILTON PAPERS



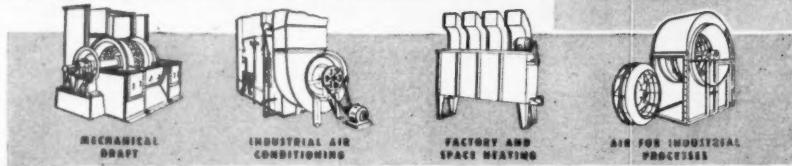


We build 'em HEAVIER than common practice! That's why Clarge equipment will take a lacing day after day, on your most difficult job, without performance failure. Yes, to see Clarge FIRST is invariably a wise and profitable move.

CLARGE FAN COMPANY

Kalamazoo, Michigan

Application-Engineering Offices in all Principal Cities



Clarge
HEADQUARTERS FOR AIR HANDLING
AND CONDITIONING EQUIPMENT

Showing wheel construction used in four large Clarge fans now operating in one of the mills of Inland Steel. Each fan handles hot gases and dusts at 550° F.



AN EXPERT and his sources: Dr. W. Leigh has inside figures on tire

Who Sells Tires?

Independent dealers more than half the business year. Chains, mail-order houses lost most ground since 1941.

Sales of passenger-car replacement tires hit a record of 65,490 in 1941. That was so far above the prewar (39,889 in 1941) that all distribution channels increased their unit sales. But there were significant shifts in the percentage of total sales made through various channels:

- Independent distributors and dealers made just over half of the sales in 1941. In 1941 their share was a little less than half.
- Stores owned by tire manufacturers increased their share slightly—from 8.8% to 9.4%.
- Outlets owned by the oil companies showed a big rise—from 15.5% to 19.1%.
- The proportion sold by chains and mail-order houses dropped sharply from 24.1% to 17%.
- **Source**—These figures are contained in a report issued last week by Dr. Warren W. Leigh, head of the commercial department of the University of Akron. Leigh's surveys are recognized as the only authoritative analysis of tire distribution. He made them annually from 1934 until the war stopped in 1940. The current study—cov-

news

writers

readers

... are ... all business.



TOP *Business Opportunity*

... ANY WAY YOU LOOK AT IT!

PLANT FOR SALE OR LEASE: Considered from every angle, this is an exceptional offer. For here is a large, modern industrial plant for sale or lease, with full equipment as a complete aluminum rod and bar mill. You move right in. It's ready to operate now.

Or this 300-acre facility, with its 36 well-designed buildings, either separately or in groups, is available for sale or lease without production equipment for other industrial uses. This Newark, Ohio, plant (land and buildings) is readily adaptable for use now by manufacturers in search of a desirable location for expansion.

EQUIPMENT FOR SALE: Bids are also invited for purchase of its aluminum production equipment, as a whole or in functional groups, for off-site use.

PLANT: Total floor area of the 36 buildings is approximately 1,237,000 sq. ft. These buildings are of modern construction, reinforced concrete, steel and brick, are offered in whole or part. Service and maintenance buildings have a floor area of approximately 180,000 ft. Clearances vary from 9 ft. to 41 ft. Process buildings, floor area, 1,056,000 sq. ft., have varying clearances from 32½ ft. to almost 50 ft. Fuel facilities, office space, boilerhouses, cafeteria, laboratory, sewage treatment plant are included. Heat is furnished from a central heating plant. Complete utilities are available including the plant's 100,000-gal. water storage tank. Gas wells and mines are located near Newark.

EQUIPMENT: Complete production equipment for the production of aluminum blooms, rods and bars.

LOCATION: The facility is located 4½ miles southwest of

Newark, Ohio, near Zanesville, Lancaster and Columbus. The land, approximately 300 acres, is level, with adequate storage space and parking area. The New York Central Railroad serves the plant site. Five miles of track are located on the property, concrete roads connect with streets and state highways.

WRITE NOW FOR COMPLETE PROPERTY DESCRIPTION: Brochures describing the various buildings, a detailed list of the machinery and equipment, engineering appraisals studies and bid forms may be had on request. Write now to the address below.

SEALED BIDS: Your bids, on Standard Bid Forms, will be received by War Assets Administration, Office of Real Property Disposal, 704 Race Street, Cincinnati 1, Ohio, until 2:00 P.M., E.S.T., October 7, 1947, at which time and place they will be publicly opened and read.

Address all inquiries to:

★
WAR ASSETS ADMINISTRATION
OFFICE OF REAL PROPERTY DISPOSAL

704 RACE STREET • CINCINNATI 1, OHIO



1246-T

Be your own Form-Designing Expert



Send for these 5 Useful Tools! . . . FREE!

With these free Hammermill helps you can design time- and money-saving business forms exactly fitted for the job you want them to do:

1. **Hammermill plastic Form Layout Rule.** Carries inch and pica printer's scales, also pica and elite typewriter scales.
2. **Layout Sheet** (either typewriter pica- or elite-spaced) for designing forms to exact size and shape required.
3. **Idea-book, "How to Design a Business Form."** Gives economical sizes, suggestions on when and how to use forms, form-designing helps, etc.
4. **Revised Manual** lists all Hammermill papers made today . . . grades, colors, sizes, weights, finishes . . . conveniently indexed.
5. **Hammermill Form-Designing Kit.** Contains: 26-point check-list and printing Specification Sheets.

Use the 26-point check-list to test efficiency of your present forms. Whatever is needed, this set of practical tools will guide you. Make your task easy. Choose paper for your forms from the Hammermill Bond line . . . the new bright white and 14 pleasing colors. Send the coupon for the Form Designing material and the sample book of Hammermill Bond.

LOOK FOR THE WATERMARK . . . IT IS HAMMERMILL'S WORD OF HONOR TO THE PUBLIC

HAMMERMILL BOND

Companion papers for office use include
Hammermill Mimeo-Bond and Hammermill Duplicator

Hammermill Paper Company, 1455 East Lake Road, Erie, Pennsylvania

Please send me—FREE—the Hammermill Form-Designing Kit, "How to Design a Business Form", the Manual and the Form Layout Rule. Include also a sample book of the Hammermill Bond.

Name Position
(Please attach to, or write on, your business letterhead) BW 9-6

1941 and 1946—is the first since the

His sources are the confidential figures of virtually all the companies in the business. The data for the recent survey came from 21 of the tire manufacturers plus numerous companies, chains, mail-order and independent wholesalers, and others.

• **Why the Drop?**—The biggest rise in Leigh's figures is the poor showing of the chains and mail-order houses. Leigh advances several reasons for this. Among them:

- The chains' chief stock in trade has always been lower prices. But last year buyers had more money in their pockets than before the war. And as long as they had the money to spend, they preferred to buy national brands.
- The chains have a relatively small number of outlets; the number of types of dealers is greater now than before the war.
- The tire companies and their dealers have done an aggressive merchandising job since the war.
- **The Figures**—The distribution of passenger car replacement tires by type of outlet before and after war:

	Percent of 1946	1941
Distributors and dealers . . .	51.9%	48
Oil companies' stores . . .	19.1	15
Chains and mail order . . .	16.9	24
Tire companies' stores . . .	9.4	8
Co-ops	1.1	0
Others	1.6	2

TOY BUYERS STAY HOME

For toy and gift manufacturers was a busy two weeks. First came the National Toy Show, and, right on its heels, the New York Gift Show. Buyers of toys and gifts, however, weren't so interested as the manufacturers.

The gift show, which opened and closed last week, fared the better of the two. Attendance was moderate. Sales were fair, although spotty. Gadget merchandise, a big seller, during the years, was in good supply but in demand.

The toy show, which closed ahead of the gift show, enjoyed less success. Customarily toy manufacturers and buyers meet only once a year, at the Toy Fair in March. This year's second show, under different management from the spring fair, was intended to peddle toys to buyers who bought lightly in the spring.

Fall buying, however, was less than hoped for. Manufacturers blamed a variety of factors. Some laid it to the stocks of ersatz toys in retailers' inventories. Some blamed the absence of several of the larger manufacturers from the show. Others considered press publicity inadequate.

Farsighted businessmen recognize that in the years ahead the great diversity of opportunity in Chicago and Northern Illinois will allow their employes to continue the kind of work they have chosen...to live where and as they like...to



play and relax as they like. That is one reason why so many new industries are locating here.

You are invited to write for details on the many industrial, residential and recreational advantages of this area, as they specifically apply to you or your business.

Industries in this area have these outstanding advantages: Railroad Center of the United States • World Airport • Inland Waterways • Geographical Center of U. S. Population • Great Financial Center • The "Great Central Market" • Food Producing and Processing Center • Leader in Iron and Steel Manufacturing • Good Labor Relations Record • Tremendous Coal Reserves • Good Government • Good Living • Good Services for Tax Dollar • Send for free booklets containing useful information on these advantages.

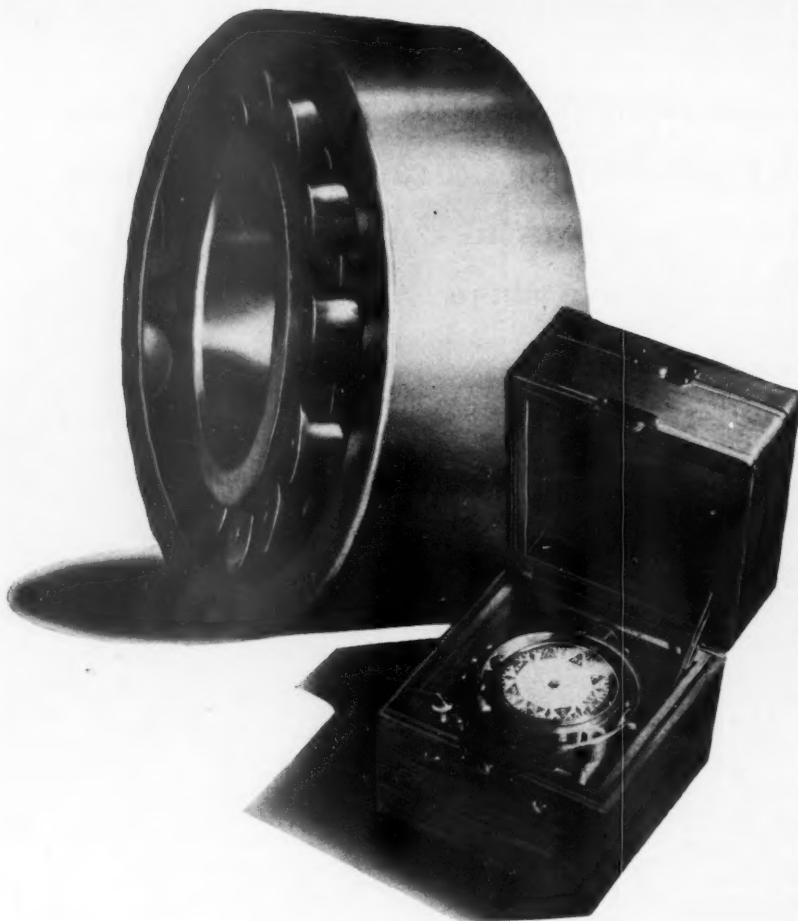
For more information, communicate with the

TERRITORIAL INFORMATION DEPARTMENT

Marquette Building—140 South Dearborn Street, Chicago 3, Illinois—Phone RANDolph 1617

**COMMONWEALTH EDISON COMPANY • PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS
WESTERN UNITED GAS AND ELECTRIC COMPANY • ILLINOIS NORTHERN UTILITIES COMPANY**

This area has power resources of 2,500,000 kilowatts, with 500,000 kilowatts more already under construction or on order.



Automatically self-adjusting...

because of the use of spherical rollers turning in an outer race which is a section of a true sphere, the Spherical Roller Bearing adapts itself freely and easily

To misalignment or deflection.

This feature assures dependable operation of the bearing since the total area of bearing contact surface is maintained under all conditions. It eliminates undue wear and premature bearing failure which ordinarily result from uneven stresses set up by misalignment.

The high radial capacity, two-directional thrust capacity, unit construction and self-aligning features of the Spherical Roller Bearing may solve your friction problem. For further information, write for Bulletin No. 200-A.

THE TORRINGTON COMPANY
SOUTH BEND 21, IND. TORRINGTON, CONN.
Offices in All Principal Cities

TORRINGTON BEARINGS

- NEEDLE • SPHERICAL ROLLER • STRAIGHT ROLLER • TAPERED ROLLER • BALL •

Druggists' Plight

They must keep status as professionals. But prescription business is declining; this shift emphasis to variety goods, food

Pharmacists—the men universally called "Doc" in the drug stores of the nation—are in a dilemma.

• **Professional Men?**—Their chief status in trade has always been their status as professional men. It helps them in number of ways. Among them:

(1) Professional prestige encourages public confidence in the products they sell, even though the same products are available in other types of stores;

(2) Their legal franchise as professional dispensers of health products enables them to stay open and sell non-drug products at odd times—Sundays, holidays, at night—when other stores are closed.

• **Or Sandwich Men?**—But the pharmacists' professional status has been steadily slipping in recent years. Chief cause: the rise in sales of ethical proprietary preparations.

Many of the modern drugs—sulfas, penicillin, streptomycin, for example—are made up and packaged



THEY CAN SMILE

Free enterprise is booming in Indianapolis—witness these youngsters, members of the Arlington Ave. Hubcap Reclamation Service, Unincorporated. They are making a good thing out of a bad stretch of road, where many a motorist has lost a hubcap. The boys pick up the hubcaps, polish them, sell them for from 15¢ to \$2. Profit: 100%.

Why the lady is all lit up ...

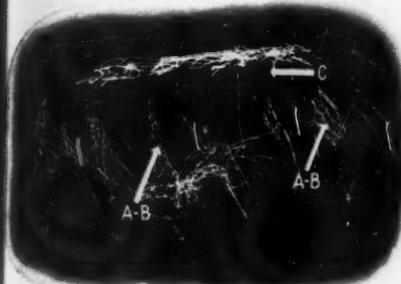


Diebold Light-Line Studies Expose

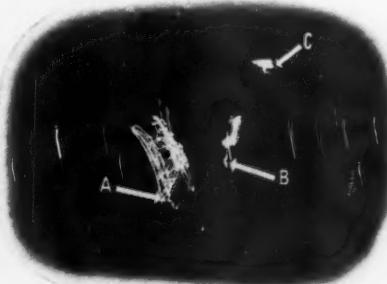
Costly Leaks in Record-Keeping Overhead

The light bulbs on her wrists and head trace the motions of her hands and body on photographic film as she refers to 10 accounts selected at random from a file of 5500.

The same study, the same names on ordinary visible card cabinets and the new Diebold Cardineer shows how the Cardineer reduces record-handling overhead up to 40%—by applying the time-saving, motion-saving, *production line* principle of "bringing the work to the worker."



Fact-finding in slow motion. To find the 10 accounts the operator gropes between seven different card cabinets required to house 5500 accounts the conventional way. Time-wasting, space-wasting, money-wasting.



Same act, speeded up! All 5500 accounts are within arm's reach in a single Diebold Cardineer. See how compact and effortless her motions are as she refers to the 10 accounts!

Your Problem's Different?

Any record that can be kept on cards, can be filed, found, and posted easily and quickly on a Cardineer. You can see for yourself how readily the Cardineer will fit into your record handling routine—simply mail the coupon for interesting data on Cardineer applications. Or phone the nearest Diebold branch or dealer.

Diebold

MICROFILM • ROTARY, VERTICAL AND VISIBLE
FILING EQUIPMENT • SAFES, CHESTS AND VAULT
DOORS • BANK VAULT EQUIPMENT • BURGLAR
ALARMS • HOLLOW METAL DOORS AND TRIM

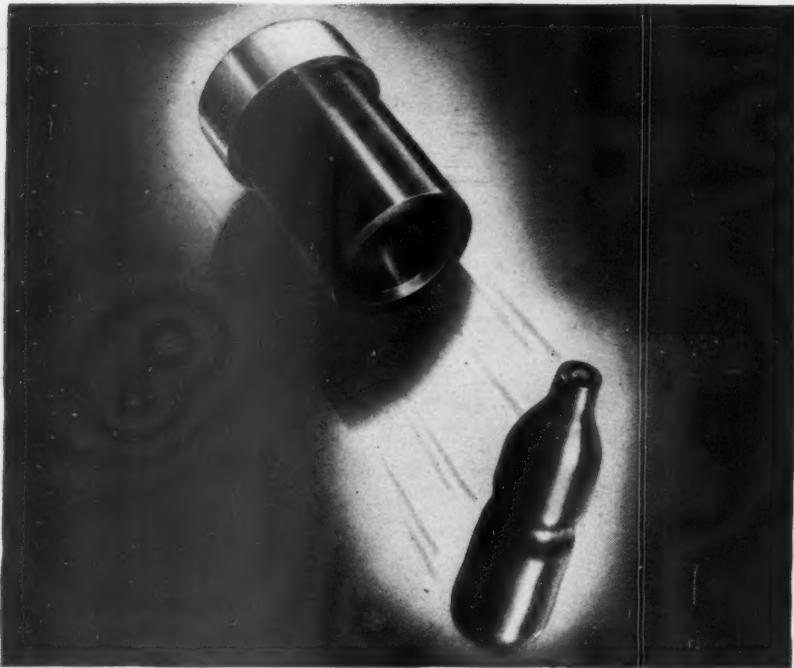
DIEBOLD, INCORPORATED
1417 Fifth Street, Canton 2, Ohio
Please send without cost, factual data on Cardineer "production line" efficiency in record handling.

Name

Firm Name

Address

City and State



Making easy work out of thousands of tough, costly metal working jobs—such as the forming of these gas cartridges for making carbonated water—is one of the many benefits of Carboly Cemented Carbide—industry's amazing long-life metal.

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the drug manufacturers; prescribed and dispensed in original factory packages.

The result has been a sharp drop in pharmacists' Rx sales, a sharp rise in the importance of prepared medicines, variety goods, and the soda fountain income producers.

• **Convention**—The problem served as one of the chief topics of discussion at the 93rd annual convention of the American Pharmaceutical Assn. in Milwaukee last week. The association has long recognized the strong desire for professional status among its members. It fought long and bitterly with the Surgeon General of the Army, trying to get him to set up a pharmacist corps on an equal footing with the Medical Corps.

Keynote speaker at the Milwaukee convention was Dr. Edward C. Elliott, veteran educator and former president of Purdue University. Elliott practically blueprinted a new professional status for the group. He reported that he is preparing a complete clinical study of the profession of pharmacy. And he indicated that pharmacy colleges and state boards, which issue licenses and enforce state pharmacy laws, will be the special targets of his final recommendations.

• **Agreement**—Leslie D. Harrop of Upjohn & Co., speaking for the American Drug Manufacturers Assn., supported Elliott's views. He termed present state pharmacy laws "a patchwork makeshift" collecting for a century.

He warned the pharmacists that they face the loss of 95% of their drug sales unless more restrictive laws are enacted. The trend toward distribution of packaged drug products through other types of outlets—country stores and urban supermarkets, for example—is growing, he said. And he charged the manufacturers of these products with strong opposition to any state laws intended to restrict distribution to drug stores.

CELLOPHANE PRICE CHANGES

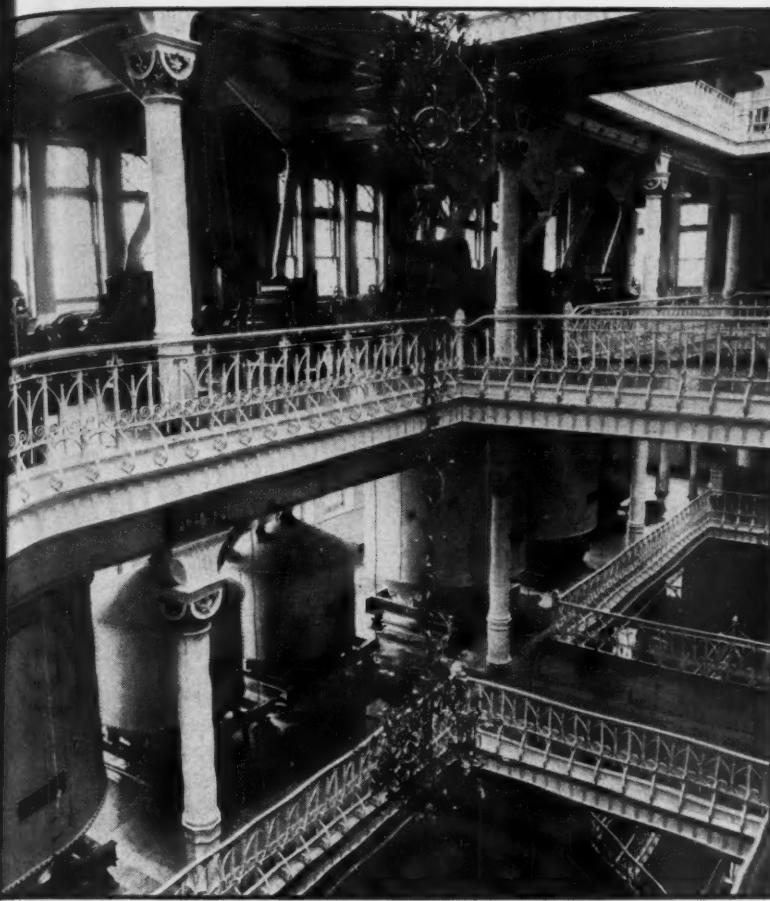
A new price schedule on Cellophane will be put in effect Oct. 1 by E. I. du Pont de Nemours & Co. Both upward and downward revisions have been made.

In moistureproof films, which are four-fifths of total production, the No. 300 gage MT and MST films have been upped from 41¢ to 44¢ per lb. in rolls. The No. 450 gage was lowered 1¢ a lb.—from 46¢ to 45¢. Water-resistant MSAT films have been reduced from 57¢ to 54¢ a lb. in the 300 gage; from 62¢ to 55¢ in the 450 gage. Moisture-proof films are used principally for packaging foods and tobaccos.

In the nonmoistureproof types, the No. 300 gage was increased from 33¢ to 42¢. The No. 450 gage was increased from 38¢ to 43¢.

FINANCE

(THE MARKETS—PAGE 106)



BREW HOUSE reflects founder Busch's luxurious tastes—and current fat profits.

Brewery Stays in the Family

Anheuser-Busch splits stock five for one—but Wall Street won't get any of it as families will keep their 80%. Company made \$8-million in '46, its best year. It now has ambitious expansion plans.

According to the old adage, an American family goes from shirtsleeves to shirtsleeves in three generations. But when Anheuser-Busch, Inc., one of the country's biggest brewing companies, recently announced a five-for-one split in its common stock, it called attention to a conspicuous exception.

Solid Perch—In Anheuser-Busch (prevailing pronunciation: Ann-high-ser-Bush), the third generation is sitting securely on top of a company with total assets of about \$68-million and an income (in 1946) of \$8,461,311. Better than 80% of the common stock belongs to members of the Anheuser and Busch families. And the company has neither bonds nor preferred stock outstanding. Wall Street, always eager to get in on good things, pricked up its ears at the

news of the stock split. But men who know the company say that the families have no intention of putting any of their stock up for public sale. The main idea behind the split is to get the stock into more convenient quantities for settling estates and making transfers within the family.

• **Top Company**—From Wall Street's viewpoint, this is a pity. For Anheuser-Busch is a nice piece of property by anyone's standards. It has come through two wars (with the accompanying restrictions on grain use) and 13 years of prohibition without losing its place in the top rank of its industry. Now it is busy modernizing and expanding its plant to tap a bigger market than ever.

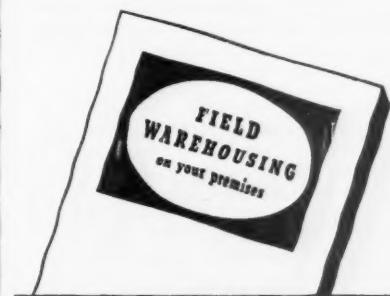
The backbone of Anheuser-Busch's operations is beer (Budweiser and Mi-

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chelob brands). But it also does a large and profitable business in yeasts, malt sirups, corn products, ice, refrigerators, cabinets, and various byproducts of brewing. It got into most of these lines during the dismal prohibition years when it spent \$27-million searching frantically for new products. The company has stayed in them partly because they are profitable, partly because it is determined never again to be caught with all its eggs in one basket.

Anheuser-Busch is now producing beer at the rate of more than 3,500,000 bbl. a year. Beer accounts for about 75% of its dollar sales volume.

• **Budweiser and Michelob**—Most of this is Budweiser, the company's best product. Budweiser, brewed on a malt, rice, and hops basis, stands pasteurization well. Hence, it is adapted to bottling, and about 68% to 70% is sold bottled. Margins are wider on bottled beer than on draught beer, and part of the company's profit reflects the high proportion of bottled sales.

Michelob, made from an all-barley malt and hops, is known as America's highest priced beer. It can't stand the high temperatures of pasteurization, and has to be sold as draught. Anheuser-Busch distributes it outside its home territory (St. Louis), but many bars do not carry it, either because of the price or because they can't keep it properly refrigerated.

• **Success in Yeast**—The most important of Anheuser-Busch's other lines is yeast. The brewing company fought its way into the yeast business back in 1926, has stayed firmly planted there ever since. At that time, Fleischmann Co. (now a part of Standard Brands) practically had a monopoly on yeast. Other companies that had tried to break into the market retired nursing an assortment of competitive cuts and bruises.

But Anheuser-Busch was well-managed and well-financed. When it moved into yeast, it stayed put. By the time repeal finally came, the yeast business was turning a nice profit. And in the first turbulent years after beer came back, profits from yeast helped Anheuser-Busch to keep going while many other brewers were getting the financial stuffing knocked out of them.

The president of Anheuser-Busch today is husky, blond August A. Busch Jr., once known as "Gussie" but more recently as "Colonel." He is the fourth member of his family to sit in the top spot at the big brewery's 142-acre plant site in St. Louis.

• **Adolphus Busch**—The co-founder and builder of Anheuser-Busch was the fabulous Adolphus Busch, friend of emperors and presidents, who lived in Victorian splendor rivaling any of them.

Adolphus Busch was born in Mainz, Germany, in 1839, and came to St. Louis in 1857. He died in 1913, at his

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THE **LIQUIDOMETER** CORP.
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castle on the Rhine, the Villa Lilly (named after his wife), at Langenschwabach, Germany. Between 1857 and 1913 he had built a fortune of some \$60-million. And he developed a beer, Budweiser, that was sold all over the U. S. and much of the rest of the world.

• **Eberhard Anheuser**—In 1861, young Adolphus Busch married Lilly Anheuser, daughter of Eberhard Anheuser, a prosperous St. Louis businessman with a number of interests, including a small brewery. Busch was then running a brewers' supply and malting business. Anheuser invited him to join in the management of the little Bavarian Brewery.

By 1873, Busch was a partner, and the brewery's output had climbed from 8,000 bbl. a year to 24,000 bbl. In that year, Busch began to experiment with pasteurization in the bottling process. Draught beer has to be shipped under refrigeration, but pasteurized beer can go anywhere and stand all sorts of temperature. Hence, pasteurization was basic to the world-wide distribution that Adolphus Busch proceeded to build up.

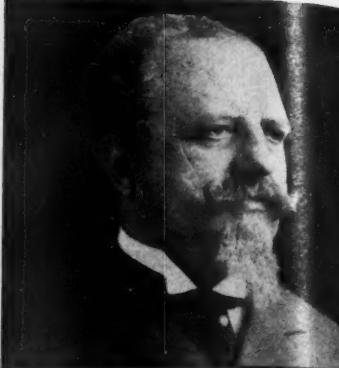
• **The Rising Tide**—For the remaining 40 years of his life, Busch rode on a rising tide of Budweiser. In 1907, the preprohibition peak, production at Anheuser-Busch hit 1.6-million bbl. Dividends climbed up to a regular \$4,000 or \$5,000 a share on the 480 shares of stock outstanding. In 1913, the company paid \$8,000 a share.

Old Adolphus didn't stick entirely to beer. He acquired from Rudolf Diesel the U. S. manufacturing rights for the diesel engine. He set up the Busch-Sulzer Bros. Diesel Engine Co. (entirely separate from the brewery company), built the first U. S. diesel, installed it in the Anheuser-Busch plant. (Last December the Buschs sold their interest in Busch-Sulzer to the Nordberg Manufacturing Co. of Milwaukee.)

With the millions rolling in steadily, Adolphus Busch could indulge his taste for grand-style travel and luxurious living. His home continued to be the big house in Busch Place, adjacent to the brewery, because he believed a man should live near his work. But he kept an estate in Pasadena, Calif., another in Cooperstown, N. Y., and his villa on the Rhine. At Pasadena, he once built a \$500,000 replica of Banbury Cross, because two of his grandchildren liked the nursery rhyme, "Ride A Cock Horse," and said they would like to see what Banbury Cross looked like.

• **Son August**—When Adolphus died, the top spot in Anheuser-Busch passed to his son, August Anheuser Busch.

August Busch was a good businessman and a stubborn fighter. He had to be, because he didn't have his father's luck. The tide of beer began to ebb rapidly after 1913. By 1920, it had gone



DYNASTY HEAD Adolphus Busch kept his business and mustaches in order.



SON August Anheuser Busch saw the company through prohibition's thirsty days.



GRANDSON Adolphus Busch III left a rich heritage for his brother and . . .



PRESENT INCUMBENT, August Busch Jr., who plans an expanded empire.

it completely. The country was bone-legally. And Anheuser-Busch was stinging about desperately for something to take the place of its big money-maker.

August Busch had prepared for the drought by introducing a temperance brew called Bevo. For a while Bevo flourished; then home brew and bootleg booze kicked the props from under.

Anheuser-Busch tried near-beer and various soft-drinks, developed a line of new products (syrups and starches), and finally hammered its way into the yeast market.

Grandson Adolphus—August Busch lived to see the end of prohibition, but he did not see the steady expansion of Anheuser-Busch in the postrepeal brewing business. His health was bad, and in 1934 he shot himself at his home outside St. Louis. His son Adolphus Busch, III, succeeded him as head of the company.

When Adolphus took over, the tide was coming in again. Brewing was not profitable in 1934. Too many companies had rushed into it. Costs were out of hand. And after 13 years of knocking twice and asking for Tony the public didn't know good beer from bad shellac.

But things were straightening out rapidly. In 1936, Anheuser-Busch's earnings were back at the \$3-million mark. In 1939, they topped \$7-million. The war pulled income down a bit, but 1946 was the best year on record. Adolphus Busch, III, died in 1946, after a minor operation. His brother, August A. Busch, Jr., who had been vice-president and general manager, took over as president.

More Expansion—Under August Busch, Jr., the company has launched an ambitious program of renovation and expansion. To finance part of the new work it has a special fund of almost \$4-million earmarked for deferred capital expenditures. Several million will go for replacements and improvements in the huge St. Louis plant. But the plans also call for a brand-new brewery at Newark, N. J., with a capacity of 1.6-million bbl. a year. As far as anyone can see, the Budweiser tide is still rising.

TRANSIT ISSUE SOLD

The Chicago Transit Authority's \$105-million bond issue, in doubt for some weeks, is finally over the hump. Its success assures public ownership of Chicago's local transportation system (BW-Aug. 16 '47, p71).

By the end of last week, investors had bought up 80% of the issue (\$84-million). The 221-member selling syndicate had set this as the point at which they would agree to underwrite the whole issue.

Shipping Savings

Old Cost, 90¢; New Cost, 40¢

West Pittsburgh, Pa., radiator manufacturer uses Acme Steelstrap for better shipping

Every business has its own packing and shipping problems. In low-profit, high-volume operations, the difference between red and black ink at the end of the year often can be determined in the shipping room.

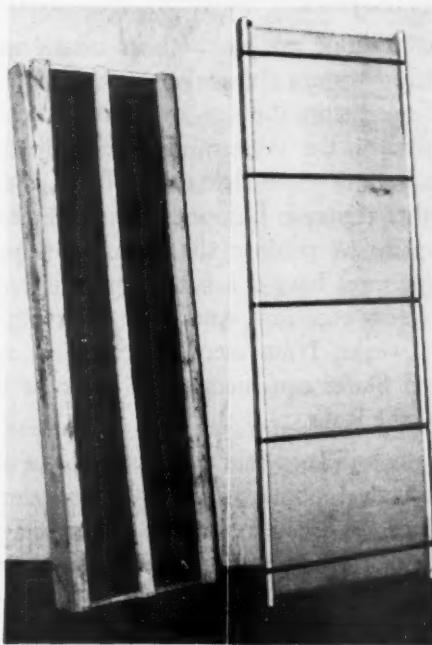
After Shaw-Perkins Manufacturing Company analyzed its shipping costs, an Acme Shipping Specialist was called. The savings his suggestions made on just one item—a 25-section wall-type radiator—are described here.

Why not ask an Acme expert to consult with your firm? There is no obligation, and you may be able to make substantial savings.

Write for the new booklet, "SAVINGS IN SHIPPING," which gives actual case histories of packing and shipping savings made in many industries.



More Savings for Acme Steelstrap Users. Acme Steelstrapping No. 3 is now available. It tensions, seals, and cuts the strap in one operation. It's the lightest strapping tool ever made, has a small base requiring only a 5-inch strapping surface, its magazine holds 100 seals, and its two levers work in opposite directions for better balance and easier handling.



OLD METHOD. Each radiator was packed in a wooden crate in which lumber alone cost \$6477. Lumber, nails and labor came to \$9048.

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THE RUHR— VALLEY OF DECISION

For Americans and for American business the most important single spot on earth today is the Ruhr Valley of Germany—a valley no bigger in area than the State of Rhode Island. Upon recovery in the Ruhr hinges recovery in Europe. Upon recovery in Europe hinges the peace of the world.

No machine can run with its most important part missing. Western Europe without the Ruhr is a dead machine. Before the war, over half the coal and steel produced in the Western part of Continental Europe came from this one little valley. Today, the fact is that no other region in Europe has the technical skills and enterprise to produce the industrial supplies which Europe must have if it is to help itself back to a self-supporting economy. And, after observing Europe for many weeks, I am convinced that no one but the United States can successfully supervise the rebuilding of the Ruhr.

If you will keep four considerations in mind, as the international politicians gamble, you can easily tell whether the United States is playing its proper role in the rehabilitation of the Ruhr. Here are the four considerations:

- I. We are paying for the Ruhr rehabilitation (or lack of it).
- II. We alone have the skill and enterprise to supervise its rebuilding.
- III. It will be a tough organizing job requiring money, hard work, and outright sacrifice on the part of management men and technicians.
- IV. We had better do it well if we love our children.

I

We are paying for rebuilding the Ruhr—or we soon shall be. The British now control the Ruhr, its government and its industry. They have been paying out about four hundred million dollars—American dollars—a year to buy the food, raw materials and equipment needed to rebuild the Ruhr. The British must spend American dollars for these supplies because the supplies can not be bought anywhere but in America. Thus far the British have, in effect, obtained the dol-

lars which they spend for the Ruhr by drawing them out of the \$3,750,000,000 loan which we granted Britain last year.

Now the loan is fast running out. The British lack dollars and other assets. We must take over, directly or indirectly, the dollar expenditures for rebuilding the Ruhr. We shall pay for it. Therefore—

II

We should supervise it. The British have been running the Ruhr's industry. They might conceivably suggest to Washington that they continue to run it while we pay the bill. *That we should never agree to* There is a sound old rule that he who pays the pipe shall call the tune.

Perhaps we would not need to invoke that rule if the British had done a good job reviving the industries of the Ruhr. *They have done a poor job—physically and ideologically.*

The physical output of the coal mines and steel mills of the Ruhr in recent months was actually smaller than at the first of the year. Production of coal amounted to little more than half of the pre-war 127 million tons per year. Steel production limps along at one-sixth of the pre-war rate—far below the volume permitted even under the present low level-of-industry plan for Germany.

Ideologically, the British Labor Government has tried to export to Germany the brand of socialism which is making such a dubious record at home. Foreign Minister Bevin—although he may now have misgivings about it—committed himself to nationalization of the Ruhr's coal and steel industries. British representatives have pushed hard to get General Lucius Clay, our able military governor in Berlin, to agree to socialization of the Ruhr. So far, he has resisted this pressure, but our State and War Departments and we as individuals must back him up to the limit if he is to continue to combat this pressure successfully.

Even if the British government were not socialist, there would be good reason for questioning the ability of Britain to rehabilitate the industries of the Ruhr.

In recent generations the British management class has shown itself more interested in cartels, restricting output, and allocating markets, than in full-steam, ingenious enterprising production.

Certainly the British must remain full partners in the *political* administration of Germany. No one suggests anything else. However, their recent production record demands turning the job of revitalizing the Ruhr industries over to the nation which is paying the bill and which leads the world in production.

If we have any faith in the business philosophy by which we have lived and prospered for 170 years, we should demonstrate that that philosophy still is dynamic by taking up the burden of the Ruhr.

III

It will be a tough job. It will require men and supplies and money from the United States. It can not possibly be done in less than five years. A list of some of the necessary steps shows how hard it will be.

A. Plans for socializing the Ruhr should be shelved quickly. The industries there should remain in trusteeship for five years. Then the Germans themselves should decide their ownership; let us hope that by that time we can demonstrate to them that private ownership and private initiative mean high production, good distribution and high wages.

B. The top supervising management jobs — both the top policy and the top technical jobs — require outstanding business ability. That is why American business men must be willing to go to Germany, sacrificing comfort and leisure, and even income, if necessary.

C. Germans should take over the management job at the operating level. The Germans are good technicians. They have a greater incentive than anyone else for getting the Ruhr back in working order. That incentive should be harnessed.

D. Special effort should earn special rewards. There is nothing wrong with the Ruhr (or the rest of Europe) that hard work will not cure. Before a man will work hard, he must feel that his work will advance him and his family. That simple motive, which powers our whole economy, must be revived in the Ruhr. To revive it requires enormous ingenuity and work . . . a new currency . . . a logical customs union . . . a sensible ration system . . . enough food, clothing, housing and consumer goods so that the worker can buy something with his currency and his ration points.

E. America will have to furnish a good share of these foodstuffs and supplies. Certain key items of

equipment also will be needed. Only as we succeed in our job can this flow be diminished.

F. A sensible priorities system must channel Ruhr coal and steel into those uses which, in turn, will further increase output. Repair parts for railroad cars should stand high on the list. Housing, coal equipment and machine tool parts should come ahead of the automobiles and permanent steel bridges which at times have been accorded preference.

German technical management of industry in the Ruhr — point C above — need not mean *political* control of the Ruhr by some future sovereign German state. As the French know, the Ruhr, next to the atomic bomb, is the most dangerous weapon in the world. It is the arsenal without which no European power, even Russia, would dare start a war. There is no sense in turning that arsenal back to the *political* control of a nation which twice in 25 years used it for aggression. (And three times since 1870.) Surely we have enough resourcefulness to let the Germans who live in the Ruhr run the industries there without turning political control over to a central Prussian state.

This partial list shows how much hard work and statesmanship the United States must put into the Ruhr. But —

IV

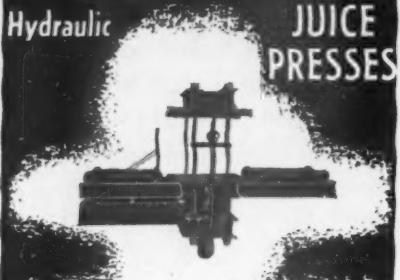
We had better do it if we love our children. If we do not do this job — if we should pull out of Germany or fail there — we leave behind us a vacuum which neither Britain or France has the strength or ability to fill. Russia has the will and, if left unopposed, the power to fill that vacuum. Therefore, the day we fail or the day we pull out of Germany, the third world war takes a long step closer to us and certainly to our children. What greater incentive does any American need to work for than our success in this field?

If we succeed, the western zones of Germany in conjunction with Belgium and Holland can become self-supporting in three to five years. That way lies recovery for all Europe. That way lies peace for the world. That way lies vindication for the American business system in which we believe — the system of competitive private enterprise, with freedom for the individual and his initiative.



President McGraw-Hill Publishing Company, Inc.

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LABOR

Taft Law Test Shapes Up

A.F.L. printers hope to get around closed-shop curbs by signing no contracts. They'll just set up conditions of employment that won't work unless they are agreed to. Employers plan to resist tactic

The first major test of whether a union can get around the Taft-Hartley law by refusing to sign a contract is shaping up in the printing industry.

- Convention delegates of the strong International Typographical Union (A.F.L.) voted to permit work in the future only under posted "conditions of employment" (BW—Aug. 16 '47, p90). I.T.U. will no longer agree to formal contracts.

- Most printing employers are equally adamant about operating only with the protection of contracts which comply with the new federal labor law. Some may agree to I.T.U.'s proposal—common in the industry in early days of the 100-year-old union. Most, however, plan resistance.

- **Variations Are Possible**—Industry generally—deeply interested in any struggle to make the Taft-Hartley law work, or to defeat its intents—will be a very par-

tisan spectator at the developing conflict. I.T.U.'s new policy can set a pattern for exact emulation only in those industries where a craft union exercises near-complete control over the labor supply. But many variations of the printers' program are possible elsewhere.

Management also sees in the coming fight (1) a test of the bite in the Taft law's teeth, and (2) a test of one way out of the current muddle over federal and state bars against closed-shop agreements—accomplished by unwritten "understandings" that only union members will be hired.

- **Protecting Closed Shop**—The typographers' new policy is aimed primarily at protecting its old and jealously guarded closed shop. As far as their organization is concerned, liability for damages due to strikes is a secondary matter.

Employer objections to the I.T.U. policy don't primarily stem from a desire

No-Contract Battle to Be Fought in Big Cities

Any major test of the new no-contract policy of the International Typographical Union (A.F.L.) will come in metropolitan areas, where there are citywide contracts between newspapers and the I.T.U.

Some of the big ones and their expiration dates which schedule the showdown stage:

Boston	Sept. 26, 1947
Philadelphia	Sept. 30, 1947
Chicago	Oct. 21, 1947
Detroit	Oct. 31, 1947
Washington	Nov. 11, 1947
Baltimore	Dec. 31, 1947
Pittsburgh	Dec. 31, 1947
San Francisco	Jan. 31, 1948
Los Angeles	Feb. 1, 1948
New York City	Mar. 31, 1948

Neither the union nor publishers want a showdown fight in the smaller cities over the policy enunciated by Woodruff Randolph, I.T.U.'s president. It would prove too costly, be too indecisive.

Hence I.T.U. strategists aren't pushing a fight for union dictated "conditions of employment" in Nas-

sau and Hempstead (N. Y.) newspaper shops where contracts are now open. Their eyes, as well as those of publishers and of business generally, are now on the big, pattern-setting contracts.



Woodruff Randolph

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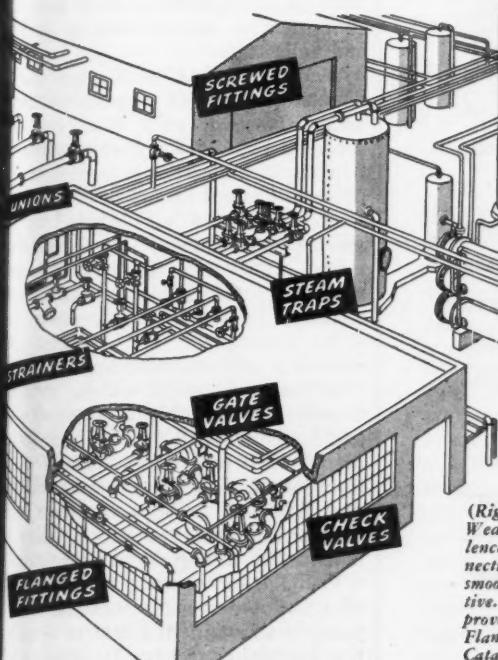
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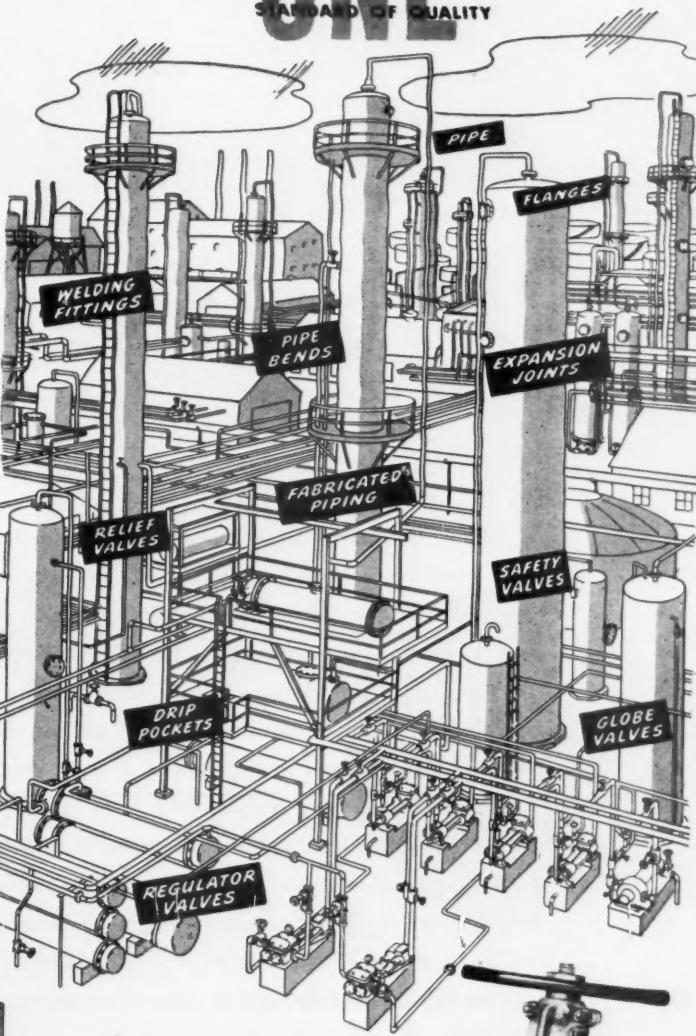
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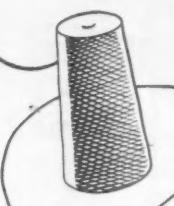
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Above: Rayon filament plant being built for American Enka Corporation at Lowland, Tennessee.

● Making rayon filament yarn is a delicate problem in chemistry and physics. You start with wood pulp—and end with a strong, light, lustrous yarn much in demand for both tires and textiles. But the yarn does not have that happy ending unless control of humidity, dust, light, temperature and time are just about perfect. That makes the creation of a rayon plant a particularly challenging assignment . . . In solving the many problems involved in the construction of American Enka Corporation's new plant, American Enka and Ferguson men developed an unusual degree of teamwork. We like—and know how—to pool knowledge and experience with our clients. And through the years, that way of approaching a client's problems has given Ferguson designed plants an extremely desirable characteristic: WORK/ABILITY to produce profits. If you are interested in that competitive advantage, phone, wire or write our nearest office.

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to do away with the closed shop. For most of them, the closed shop has worked efficiently (BW-Jan. 1946, p56). They object, however, to what they term coercion which is aimed at violating the new federal labor law. Even more, the object to what they look at as a move to pin management down to willful adherence to I.T.U. work rules. An I.T.U. demand in 1945 for a contract clause which would obligate employers to abide by union bylaws sparked a series of strikes (BW-Dec. 29 '45, p98). Printing employers consider the present I.T.U. policy even more extreme.

• **Contract or Not**—Woodruff Randolph (picture, page 84), president of I.T.U., advised the union's 92,500 members that "whether or not we can contract [under federal and state laws] for closed shop, we will operate under the closed shop." The same thing would apply, he said, to "other established conditions of the I.T.U." Convention delegates backed up this position unanimously.

They agreed that "members may accept employment only from employers who are willing to employ them under 'conditions of employment' [approved] by the executive council of the I.T.U." This policy was written into the general laws of I.T.U. Randolph was vested with authority to void any future contract or agreement that does not conform with international union law and policy.

• **Warnings**—I.T.U. locals were told to post statements of conditions under which they will work whenever short contracts expire. They were cautioned to comply fully with requirements for notices of intent to end or change contracts. They also were warned against making any demands for closed-shop clauses. They were told not to represent their mandate on conditions of work as a list of contract demands.

As a safeguard, I.T.U.'s top men drafted a uniform statement of conditions for work, and it will be used nationally. There are blanks for local wage and hours figures; a preface bars its use in collective bargaining. Taking a cue from John L. Lewis, one work condition of I.T.U. will be that members offer their services only "so long as they are individually willing and able to work."

• **Will File**—In contrast to the attitude of many other major unions, I.T.U. plans to maintain its status as a collective bargaining agency. Its officers will file the required affidavits that they are not Communists, or subversive. But under the new union bylaws, qualifying will be largely a formality.

• I.T.U. locals henceforth are barred from petitioning the National Labor Relations Board for certification "except in special cases."

• Locals may not, under any circum-

shop, file unfair labor practice charges other formal petitions with I.T.U. they terminate without I.T.U. executive council sanction.

Legal Basis—The union strategy is based on two legal interpretations: (1) members are under no compulsion to work only on the job if they do not approve of conditions of employment under which they are asked to work, and (2) neither union nor individual workers can be required to agree to any proposals, or make any concessions, in collective bargaining.

I.T.U. concedes that its policy is unilateral, but it maintains that employers are free to post conditions of employment, too. If they are satisfactory, I.T.U. members will agree to work under them. If "the conditions . . . are not to our liking, we need not work that shop," locals are told.

Line of Attack—Management's attack on the new I.T.U. policy is expected to be double-barreled. It contends that: (1) the union program precludes collective bargaining negotiations required under the T-H law, and (2) under the Heinz decision of the old NLRB, upheld by the U.S. Supreme Court, I.T.U. can be required to accept a written contract incorporating any mutually acceptable terms covering shop employment. (The Heinz decision followed a petition to the LRB by a union which had negotiated an oral agreement with management, wanted it put into writing and signed. The LRB agreed that Heinz should be required to comply with the union demand.)

Employers' Criticism—Both the American Newspapers Publishers Assn. and the commercial employers' Printing Industry of America, Inc., roundly criticized the I.T.U. no-contract policy. The rep. I.A. got from Gerard D. Reilly, who was involved in drafting the T-H law, a memorandum of advice covering I.T.U.'s current stand.

According to Reilly, the T-H law does not make informal understandings between labor and management illegal per se. However, any employer who enters such an arrangement runs the eventual risk of being cited for an "unfair labor practice." Any aggrieved party—such as a nonunion printer denied employment—could upset the "understanding" with a complaint to the LRB, might win a job with back pay to the date of his original and unsuccessful application.

Job Rights—I.T.U. also fortified itself in its policy with a new union law which provides for booting out members of locals if they refuse to adhere to union rules. Under closed-shop policy this would bar them from jobs. According to Reilly, this also runs counter to T-H provisions that protect job rights of anyone ousted for any reason other than nonpayment of union dues.



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THE LABOR ANGLE

Influences

There are two opposing influences which play consistently on the labor movement. An engineer would describe the conflicting forces they exert as centripetal and centrifugal.

The first of these influences, which tends to push the separate elements of organized labor into a single, central entity, is fairly obvious. Labor itself calls it "solidarity." It lies behind the initial association of workers to advance their economic interests. It stimulates the conjoining of local organizations into national unions and the combination of national unions in federal bodies like A.F.L. and C.I.O. Without a counterforce operating against it, this influence would amalgamate all the constituent parts of the labor movement into "one big union," the long-standing vision of syndicalists and radicals.

But opposing this centripetal tendency are strong pressures operating to keep labor organizations separate and apart. In the main, they are the expression of the competition for power which goes on in any social institution. Thus, individual members will resist giving to their local organization authority over their actions; the local unions will strive for the largest possible measure of autonomy; the national bodies, jealous of their prerogatives, will sharply limit the power of the federation—A.F.L. or C.I.O.—with which they are affiliated. In the absence of the "in union there is strength" influence, this force would keep organized labor's power diffused among thousands of local unions. As it is, the labor movement's structure has been formed by the balance of these two tendencies.

Centralizing

By and large, however, the centripetal influence has been stronger. The history of organized labor in America has been an account of building larger and larger unions and of centralizing authority at the top of the organizational pyramid. There have been notable exceptions, to be sure, but inevitably labor has taken on the character of the environment in which it operated. Thus, large-scale industry stimulated large-scale unionism; an interdependent economy was the incentive to interde-

pendent unionism. There has been a premium on the development of monopoly-like union structures which would operate over the widest possible area of the labor market. There seemed to be historical reasons why, eventually, some variation of the "one big union" idea of the syndicalists might prove to be not altogether dream stuff.

There were grounds for such an anticipation as long as the centrifugal force operating on the labor movement was not markedly strengthened. But that is exactly what has now occurred. And management should take note that an important long-run trend in the labor movement has, for the present, been arrested if not reversed.

Independence

The new labor law is responsible. It puts a distinct premium on a union's being independent, compact, self-sufficient. George Lynch, president of A.F.L.'s pattern makers, clearly revealed what is developing when he faced up to the problem of qualifying his union for National Labor Relations Board services under the Taft-Hartley act. In order to qualify, Lynch and his fellow officers in the pattern makers are willing to execute the non-Communist affidavits (BW—Aug. 30 '47, p72). But the officialdom of the parent A.F.L., with which Lynch's union is affiliated, must fill them out as well. Lynch pointed out that one A.F.L. vice-president's refusal—John L. Lewis was his example—could disbar his union. This, he said, made Lewis boss of the pattern makers, and he wasn't having any of that.

Thus the pattern makers have a real incentive for pulling out of A.F.L. And every other union now sees an advantage to being independent which did not exist before. This does not mean, of course, that A.F.L. and C.I.O., as affiliated confederations, face imminent disintegration. As a matter of fact, unity, for political reasons, is now more important to labor than ever before. But politics are somewhat more amorphous and less immediate than the daily problems of organizing and staying organized. In this arena the independent union now has an edge (page 92). If that edge gets large enough, there will be a flight from combinations on the labor front.

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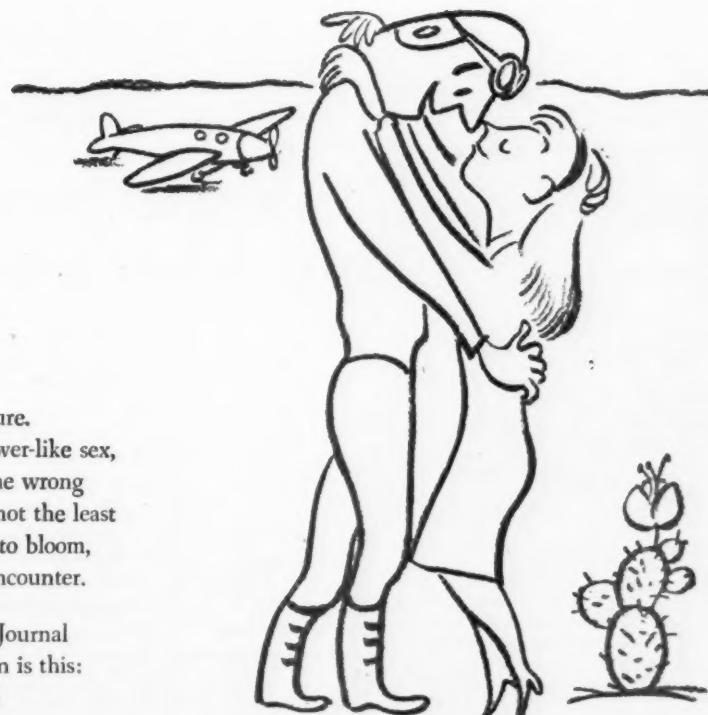
This philosophy applies strictly to horticulture. If the poet had anything else in mind — the flower-like sex, for instance — it is obvious he was barking up the wrong air shaft. For women possess strange powers — not the least of which is their ability to make deserts burst into bloom, and to bring to life so many of the things they encounter.

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and waste its sweetness on the desert air*
*apologies to Thomas Gray





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Shipyard Tie-Up

Costliest, most serious U.S. strike goes into third month as C.I.O. shipbuilders demand that premium pay be continued.

The nation's costliest and most serious strike, a walkout of 60,000 C.I.O. shipbuilders, has just gone into its third month. Important shipyards on Atlantic and Gulf coasts this week still stood silent and deserted. Union and employer lines were drawn taut; government efforts to bring them closer together showed little success.

• **Shift-Hourly wages**, the original bone of contention, no longer were the major concern of negotiators. They were sharply divided on whether premium pay would continue as an important factor in American shipbuilding labor cost.

The bargaining parties clearly demonstrated their uncompromising attitude on that issue: Despite the incentive to sign contracts before the effective date of the Taft-Hartley law, Aug. 22 passed without any real break in the impasse. The shipyard strike thus became the only major dispute to survive the period in which union security contracts could be signed without the complicating requirement of petitions and elections.

• **Charges**—The Industrial Union of Marine & Shipbuilding Workers of America (C.I.O.) represents the workers. It charged that employers were out to "break" the union. The union also complained that government's "disinterest" in the shipbuilding industry was prolonging the strike. It demanded federal intervention to "preserve a skilled force in the shipbuilding industry."

The biggest employer involved, the Bethlehem Steel Co.'s Shipbuilding Division, with 30,000 workers in eight yards on strike, denied any unwillingness to settle with I.U.M.S.W.A. Shortly after Todd Shipyards Corp. ended a brief strike in July with a 12¢ increase, Bethlehem offered a similar pay boost. But unlike Todd, Bethlehem said it was not willing to stand pat on other clauses in its terminated contract. It wanted some revisions.

For one thing, it wanted to limit the 12¢ increase to hourly paid employees, excluding piece-rate and incentive-plan workers from an automatic wage hike.

Moreover, it asked the right to "establish, eliminate, or revise" any incentive plans or piecework rates, position rates, and rates in lieu of incentives. It asked also for "clarification" of overtime rules to end duplicated payments.

• **Reconsideration for Peace**—Bethlehem argued that premium pay programs

had been instituted during the war as a means of boosting production when high output was badly needed. But it felt that they should be reconsidered now.

To the union, the proposals added up to one thing: a loss of premium pay which would not be balanced by the new 12¢ hourly increase.

So I.U.M.S.W.A. turned down Bethlehem's proposals. It offered to settle for a slight modification of the Todd Plan—"12¢ and our old contract terms." Talks deadlocked.

• **Others Hit**—Other major shipyards still involved this week included those of the Federal Shipbuilding & Drydock Corp., the New York Shipbuilding Corp., and the Atlantic Basin Iron Works. Bethlehem workers quit jobs late in June (BW—July 5 '47, p74); others were among a total of 60,000 non-Bethlehem shipbuilders who struck a week later.

One other shipyard strike has lasted as long as ten weeks—that called by C.I.O. in 1937. However, the walkout a decade ago never reached the broad proportions of the 1947 strike, nor did it tie up as much tonnage in idle yards.



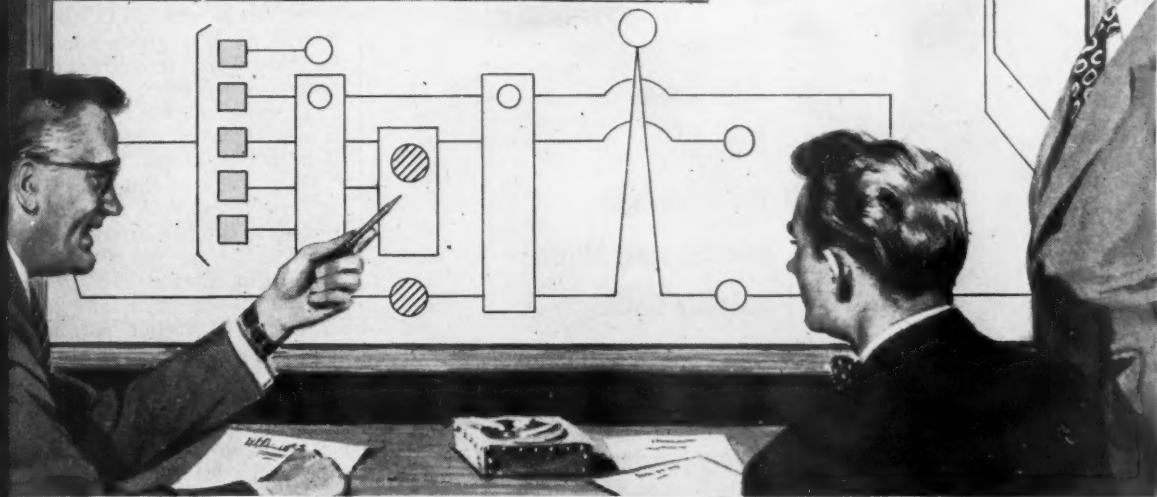
THE SWING SHIFT

About the oddest job in the odd-job season, just ending, was held by Charles Skafec, an ex-G.I., in Akron. Skafec was employed by the Firestone Tire & Rubber Co. during his college vacation. His job: driving 3,000 golf balls daily to test the "indestructibility" of a new hard-rubber club head. Firestone figures that Skafec hits as many tee shots in a week as an average golfer does in a lifetime of play.

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Independents Set

Phone union's resurgence in fight against C.I.O. is due to international unions' reluctance to qualify selves under NLRB.

The bargaining position of unaffiliated unions has lately been considerably strengthened. That is the main significance of the resurgence of the independent Communications Workers of America.

• **Grim Future**—C.W.A.'s president, Joseph Beirne faced a grim future when a revolt carried a big slice of his potential members into C.I.O. (BW-June '47, p102). The independent lacked the heavy financing and the organized manpower to cope with a big-scale C.I.O. drive and C.I.O. was prepared to launch a major campaign to win all telephone workers into one union.

There was a growing belief, extending high into C.W.A.'s leadership, that it would eventually have to seek C.I.O. affiliation for its own protection.

• **A Bright Future**—The picture has changed considerably recently—not only for the C.W.A. but also for many other independent unions (page 8). Reason: They can now look to the National Labor Relations Board for help in getting and holding members. The bigger, more powerful, more aggressively financed international unions can petition for NLRB aid only if they change their current policy of refusing to qualify as collective bargaining agents under the Taft-Hartley law.

NLRB's general counsel, Robert Denham, set the stage with what became one of the most controversial rulings ever to come from a federal labor agency. Denham interpreted the T-H law as requiring officers of A.F.L. and C.I.O. to swear that they are not Communists. This was a prerequisite to the qualification of any member union for NLRB certification (BW-Aug. '47, p67).

• **Importance**—Beirne's strategy has demonstrated how important the independent unions feel this is to them. He was one of the first to qualify his union for recognition under the T-H law. As a result, C.W.A. can petition for collective bargaining elections, or file unfair labor practice charges, or go to NLRB for other assistance. The rival C.I.O. Telephone Workers Organizing Committee cannot. It must rely entirely on its economic strength.

However, Beirne's first foray against the C.I.O. telephone union so far has netted no gains. The American Union of Telephone Workers, headed by former Beirne aide, John J. Morris, had spearheaded the break from the

Se

dependent union to C.I.O. Beirne challenged the right of the A.U.T.W. to represent long-lines employees of the American Telephone & Telegraph Co.

Which Union?—A.T.&T. heeded Beirne's C.W.A. by revoking recognition of the A.U.T.W. because of "recent developments"—the split with C.W.A.

A.T.&T. later agreed to let the A.U.T.W. prove its claim to represent majority of long-lines operators. It extended its recognition for 60 days, and asked the union to submit dues deduction cards signed by a majority of the company's 23,000 long-lines operators. A.U.T.W. can do this without recourse to the NLRB. Meanwhile, C.W.A. is standing by, on the alert for a chance to shift the A.T.&T. contract into the labor board's jurisdiction.

Unification Efforts—The C.I.O. campaign has been moving slowly. Efforts so far have been concentrated largely on unification of its member locals, formerly loosely knit independents. It has encountered one internecine problem. The T.W.O.C. has stepped into the jurisdiction of the C.I.O.'s Baptist United Electrical, Radio & Machine Workers. And the latter has been quietly opposing any expenditure of money and organizing effort to build what it deems a rival within C.I.O.

AIL WAGE AWARD

Officially, the 15½¢-an-hour wage boost won by one million nonoperating railroad employees is a "second-round" increase. But the rise, coming this late in the season, has an importance well beyond pay hikes which have followed the pattern set in steel and other major industries. It may provide a third-round goal for the big unions, now planning for their 1948 wage negotiations (BW—Aug. 23 '47, p. 15).

Major union conventions are scheduled during the next two months by A.F.L. and C.I.O. Two things about the railroad wage boost are going to be discussed: (1) It was a straight 15½¢ hourly increase, not 11½¢ with allowances for various "fringe" increases; and (2) it was awarded by an arbitration panel which deemed it justifiable after hearing arguments on a demand for a 20¢ hourly raise.

Both the carriers and brotherhoods agreed to submit to binding arbitration, under the Railway Labor Act, after mediation failed. The Employees' National Conference Committee and eastern, western, and southeastern carriers' conference committees approved the award, which was made retroactive only to Sept. 1. Carriers representatives called the award "a stiff one," estimated its cost at more than \$500-million annually.

CROTTY-OPERATED RESTAURANT OF NILES-BEMENT-POND COMPANY AT WEST HARTFORD, CONNECTICUT



"The Niles Cafeteria Does a Job for Us"

"I keep going to the Niles cafeteria," says William P. Fay, "because I get along better at my work with good hot food." For eight years a valued Niles employee, Mr. Fay's work is grinding and lapping precision gages. He speaks for his 3,000 fellow workers who depend for good health upon a regular, nutritious diet to give them the steady hands needed to uphold the Niles-Bement-Pond reputation as leaders in the manufacture of precision tools.

President F. U. Conard has said that "Niles-Bement-Pond must maintain high quality not only in our products but in our buildings, our equipment and our people." And in keeping with this policy of valuing good workmanship equally with good equipment, the Niles management helps to keep their workers happy by using experienced Crotty Brothers' restaurant service to furnish good, appetizing hot meals at the plant.

Niles officials have found, as a constructive labor relations policy, that it pays in production efficiency to attract and keep their better type employees. And as evidence that Crotty Brothers' service ably assists in such a program, their cafeteria has been Crotty-operated since 1942.

* From a series of case studies of in-plant feeding made by Richardson Wood, Industrial Analyst. A copy of his report on management's postwar opinions about employee feeding will be sent free on request.

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BUSINESS WEEK	3239.43
Magazine 2	1320.63
" 3	482.67
" 4	312.25



PRODUCTION MANAGEMENT trainees chart the flow of material in a power press



COST-CONTROL students receive assistance from Ford's Carl Goeckel (right)

Factory College

Ford, Wayne University set up course to train men for administrative jobs. Students work while they study.

Any company would like to have a pool from which to draw thoroughly trained men. Ford Motor Co. has done something about setting one up. Ford and Detroit's Wayne University have established a five-year working-and-college course leading to the degree of Bachelor of Science in Industrial Management.

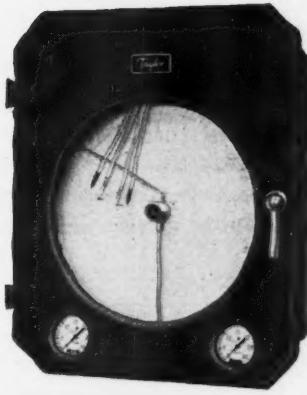
A group of 63 Ford supervisory employees have begun their first year's courses, alternating between shops and



FOREMANSHIP is studied by trainees assigned to the crankshaft department.

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IT'S A FACT! When you buy a Taylor Instrument—whether it's our versatile air-operated Fulscope controller or our sturdy easy-to-read Industrial Thermometer—you get with it the services of 151 scientists. We believe it's one of the best—and ablest—groups of scientists in any similar type of industry. It includes specialists in every branch of instrumentation. And they're here to apply their specialized knowledge to the design and production of instruments for *your* specific processing problems.

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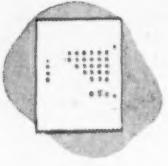
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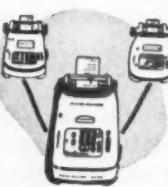
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classrooms. They are among the first men to participate directly in the broad company plan to make foremen a more effective part of management.

• **Choice**—When the idea was first discussed, Ford had to decide whether to do its own training or to enlist an outside agency. The latter course was chosen to eliminate any possibility of perpetuating old ideas.

So the School of Business Administration at Wayne was called on to develop a specialized program of study and work. Its objective: to have qualified men ready for tomorrow's administrative positions in manufacturing.

• **Curriculum**—Courses and electives needed for the degree are specified. Available courses include: personnel management, speech, English, industrial organization, safety, factory planning and layout, product design, motion and time study, economics, mathematics, production controls, process engineering, accounting, job analysis, manufacturing cost accounting, industrial purchasing, marketing and distribution.

Some of these courses are taken at Wayne during evening hours; most are held at Ford after regular working hours, using Wayne-approved study outlines.

• **Regular Work Schedule**—While taking courses, the candidates pursue regular working schedules. For instance, they spend from three months to a year on methods engineering, scheduling and distribution, quality control, materials control, tool control—as assistants to foremen, general foremen, and superintendents, and in other posts.

During the entire five years the men are paid their regular salaries by the company. Ford also pays all tuition bills.

• **Eligibility**—Any supervisor who has been with Ford five years can apply for membership in the course, provided he meets certain requirements. These include: (1) trade school and apprentice school education, or high school and apprentice school, or high school and two or more years of college; (2) demonstrated administrative ability; (3) age between 25 and 35; (4) ability to meet college entrance requirements.

SENIORITY ENFORCEABLE

Seniority rights are privately held, and are legally enforceable. They may not be interfered with by any union-management agreement to favor one worker, or group, over another. The U. S. Circuit Court of Appeals in Norfolk has so ruled, in a case brought by a Negro fireman against the Norfolk-Southern Ry. and the Brotherhood of Locomotive Firemen & Enginemen. The charge was that the complainant's rights had been ignored in an agreement to give choice jobs to white firemen. The decision required management and union to obey seniority rules.

INTERNATIONAL OUTLOOK

NESS WEEK
EMBER 6, 1947

1
SERVICE

The U. S. has run into favorable diplomatic weather in two spots:

- (1) At Rio the Inter-American Defense Conference agreed on a watertight hemisphere security system;
- (2) After talks in London with the French, the U. S. and British felt free to push their joint program for boosting the German level of industry (page 101).

But barometers are veering to stormy in many another important place.

In China, France, Britain (page 104), and the Balkans, things look worse, not better.

Washington won't have Gen. Wedemeyer's report on China until he gets back to this country in a week or two. But Business Week's representative in China reports that it will be packed with dynamite.

As seen by Wedemeyer, the Chinese situation boils down to this:

The Chiang government is no longer able to govern.

Since the Marshall mission left China in March, 1946, corruption, maladministration, inefficiency, and military ineptitude have been on the increase. Popular opposition to the Chiang government is growing.

No amount of U. S. aid can save Chiang now unless he changes miraculously overnight.

Wedemeyer will reaffirm present U. S. policy: no financial aid for any Chinese government unless it undertakes a drastic land reform and a thorough housecleaning, political, economic, and financial.

Even if Nanking adopts a new policy, China will be expected to draw on some of its assets abroad before getting U. S. money. Private assets held secretly in foreign countries are worth between \$500-million and \$1-billion.

The Ramadier government in France is struggling to stave off runaway inflation. It's also having to meet rising Communist criticism. The Reds blame Ramadier for the French economic crisis (page 105).

The latest cuts in France's dollar imports are not making Ramadier's position any easier.

Paris is cutting imports from dollar areas for the second half of 1947 as follows: gasoline, \$55-million; textiles and fibers, \$44-million; machinery, equipment, and replacements, \$61-million; metals and ores, \$25-million; foodstuffs, \$6-million.

Government officials say they could restore some of these cuts before the end of the year if they get a second \$250-million from the World Bank. They expect French exports to dollar areas to fall below, rather than top, earlier estimates.

To save dollars the British have cut all food imports from the U. S. But they're also planning to earn more dollars in the U. S.

Two interesting moves are being made to boost sales in the American market:

(1) The Austin Motor Car Co., Ltd., plans to set up a nationwide distributing organization in the U. S. It will market two lines of cars: a light model in the low-price field; and a medium-weight car in the high-price range. L. P. Lord, Austin chairman, hopes to do \$15-million of American business in the next 12 months.

(2) The British Export Trade Research Organization (with U. S. head-

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
SEPTEMBER 6, 1947

quarters in Washington) is now offering a free service to American importers who want British goods. BETRO will channel all requests for information to the right manufacturers in Britain.

U. S. companies exporting to South America will soon feel the effects of London's move suspending the free convertibility of sterling into dollars (BW—Aug. 30 '47 p85).

South American countries, particularly Brazil and Argentina, accounted for about half the run on Britain's dollar reserves.

This is what happened: The British were buying a lot from South America but selling very little. So the Latin nations converted their sterling into dollars to buy in the U. S.

Now there will be a double squeeze on U. S. sales in the area: (1) no more dollars from London; (2) Britain will divert exports to this market, offer real competition to U. S. exporters.

South Africa is the one sterling area country which probably won't go in for heavy cuts of U. S. imports. As the world's major gold-producer it can afford not to.

In the year ended Mar. 31, 1947, South Africa sold \$600-million worth of gold. Of the total, \$220-million came to the U. S.

But even so the U. S. won't find the South African market easy. Competition from Canada and Britain promises to increase.

Canada is sending a high-powered trade delegation to the Union of South Africa this month. Included will be Minister of Trade J. A. MacKinnon, and V. M. Drury, president of Canada Car & Foundry Co., Ltd.

Canada Car already has a \$10-million order for freight cars from the South African Railways. A group of British firms has an \$8-million contract for wheels and axles.

Australia is planning to put about \$40-million into its tinplate industry. The country needs the plate for canning meat, fruit, vegetables, jam, and other foodstuffs. It's now finding it hard to meet its needs from the U. S. and Britain.

Broken Hill Proprietary is promoting the plan. This company has representatives in the U. S. already looking over the latest American production methods. Strip mill equipment would have to be bought here.

The Crane Co. of Chicago has hooked up with a Dutch firm to produce wire and pipe fittings in the Netherlands. Bulk of the output from the new joint company will go for export.

Argentina has ordered \$8-million worth of agricultural equipment from Fiat of Milan. Payment will be made in wheat and meat.

The U. S. is having as rough a political ride in Greece as the British had before they cleared out. The Greeks can't seem to find any middle ground between extreme left and extreme right.

But Washington expects an end to the bickering among the anti-Communists as soon as the U. S. aid program really gets under way.

Private trading channels, American and Greek, will be used to handle most of the \$75-million worth of civilian goods slated for Greece.

BUSINESS ABROAD



FOR A STRONG EUROPEAN ECONOMY, the U. S. team—(left to right) Gen. Lucius D. Clay, Military Governor in Germany; Lewis W. Douglas, Ambassador to Britain; and Robert D. Murphy, Clay's political adviser—carried the ball at the London conference.

Reich Industry: A Challenge

Despite increases in output allowed by U. S. and Britain, German production won't reach 1936 level until the distant future. Now far below ceiling set at Potsdam. Problem is to get it off floor.

BERLIN—The London decision to permit—and push—increased production in the combined American and British zones of conquered Germany is good political realism. But to any man who himself has seen the destruction of our enemy's plant, economic life, and production morale, the realism ends about there as of today. To him, some of these two-power plans to shove western Germany through the production ceiling built over its ruins by the four occupying powers in March, 1946, will seem more like wishful thinking than realistic economic planning.

The 1936 Rate—The U. S. and Britain contemplate letting their areas' industry go ahead at the 1936 rate—instead of reconverting down to less than 5% of that, as they had agreed with Russia and France. They want to encourage greater than prewar exports in the very industries on which the Reich made war—metals, machinery, chemicals.

If you took the new level of industry announcement at face value (table, page 102), you might expect to see things like this happen in Germany:

Steel—Permissible output almost doubled;

Copper—Bizonal fabrication up to 215,000 tons (only 140,000 tons were allowed to all Germany under the old four-power plan);

Machine tools—Jumped from an agreed 11.4% of prewar production to more than 65%;

Passenger cars—Speeded up to four times the limit set for the combined zones in 1946—160,000 a year against 40,000;

Tractors—Wartime capacity actually increased;

Electrical industry—Allowed to go all out, although capacity in the bizonal area is half again as large as it was before the war;

Chemical industry—Germany's historic punchpacker would hit full 1936 capacity, 42% higher than the limit set when its victims became victors.

And, as an American businessman, you might take special note of the breaks given to lines in which American interests are strongly represented in Germany—for instance, the electrical industry, autos.

• The Dim Future—If you were in Germany when the news of the new level of industry was flashed to the world, you would know that these things aren't

going to happen soon. And you might well wonder if they would ever happen—unless you had also been here to do the same kind of wondering when the Kaiser's Germany went down in 1918.

However, it doesn't take a look at this mishandled economy, still flat on its back more than two years after V-E Day, to show that the new output figures are not for next week. A few sample statistics will do that: Actual current German production is at less than one-third of what even Moscow okayed; the combined zones' actual export goal is only \$250-million for the year ending next Mar. 31—whereas the new program estimates 1936 exports from the area at \$1.4-billion and adds that it would take at least 15% more than that to pay for imports that are needed for "a viable, peaceful economy." Actual current steel production is well under 3-million tons a year—well under even the Potsdam ceiling, now holed through, of 5.8-million tons, and even further below the new permissible level of 10.7-million tons.

• First Problem—These samples can be duplicated all the way through the German economy. They reveal the fact that the first problem of the victors—all four of them—is not to set a ceiling over that economy, but to get it off the bomb bunker floor, where it lies amid debris of conquest in apathy of defeat.

The statistics also show that the real significance of the London decision lies outside such dream figures. What has happened that's important is this: American and British masters in bank-

Increases Allowed in German Output

How does the "level of industry" now allowed in British and American zones of Germany compare with that originally permitted under the Potsdam agreement? Industrial categories set up in the new bizonal plan

are not uniformly comparable with those in the four-zone job. Of the 17 that are similar, 11 are slated to produce at a higher rate in the two zones than they would have in all four zones under Potsdam:

	Proposed Capacity	Percent Increase
Steel ingots (million metric tons)	10.7	85%
Cement (million metric tons)	8.9	11
Refined copper (thousand tons)	215.0	54
Refined zinc (thousand tons)	180.0	33
Refined lead (thousand tons)	141.0	18
Passenger cars (thousands)	160.0	300
Commercial vehicles (thousands)	61.5	54
Tractors (thousands)	19.5	39
Heavy machinery (million marks*)	500.0	16
Machine tools (million marks*)	170.0	129
Dyestuffs (million marks*)	173.0	32

* One mark equals 40¢.

ruptcy of this fantastic Bizonia have served historic notice on all parties to the crash. They have told the working force of this wrecked concern that it can have something to work with.

• **Unlocking the Tools**—The 1946 level of industry agreement clearly locked up a lot of tools, along with guns. Now the U.S. and Britain have told the shareholders who are paying assessments to keep the establishment alive—which means the American and British taxpayer, chiefly the American one—that business is going to be made to pay its own way. They have told some obstreperous creditors—notably in Moscow—that they are prepared to put this Anglo-American wing into operation by itself, put it into competition if necessary, go on and turn it into an arsenal if worst comes to worst.

The communique stressed the fact that the 1946 agreement "was based on specific assumptions which have not been fulfilled." It meant, for one, the assumption that Russia and France would keep their Potsdam promise to set up an economically united Germany. It underlined the fact that the level of bizonal "reparations industries"—steel especially—had been upped.

• **Purpose**—In part, that was to provide the goods needed to exchange for essential German commodities that had been pulled out of the German economy as reparations. It wrote between the lines that Russia's ruthless reparations policy in its zone had both created the need there for industrial products from western Germany and weakened eastern Germany as a primary supplier of certain goods which the west must now import from other nations and pay for by exports. And you can read into this document a suggestion that if Russia should

throw its German stakes into the common pot at the momentous four-power conference coming in November, it might be possible to let go some of the bite that the new program has taken out of combined zone capacity previously available for reparations.

• **Old vs. New Plan**—The real difference in the old and new plans is in the metals, machinery, and chemical industries—the industries from which the most capacity was to be taken for reparations. These have been pushed up drastically (even above 1936 levels) so they can produce a surplus to pay for imports. In several instances, the upward revision wipes out the margin between what the two zones will keep in the way of capacity and give in the way of reparations. This is true of the area's zinc, lead, synthetic ammonia, tar distillation, and agricultural and road tractor plants.

Margins in a number of remaining lines continue large, but not so large as they were. In miscellaneous chemicals (which include military explosives), 62% of existing capacity in the combined zones will be available for reparations. In machine tools and heavy machinery 35% will be available; in chemicals as a whole 46%; in optics and fine mechanics 19%; in light machinery 23%.

Steel represents a special case. The annual production goal of 10.7-million ingot metric tons a year compares with an existing capacity of 19.2-million tons in the bizonal area. Capacity for more than the permitted production will be retained, perhaps 11.5-million or 12-million tons. That would leave more than 7-million tons for reparations.

• **Revisions**—Since the middle of 1946, relatively few industrial plants have

been dismantled. This reflects the Clay policy of suspending all new reparations dismantling in the U.S. zone pending definite action on the four-power pledge to treat Germany as an economic unit (BW—Aug. 24, '47, p86). Although not publicized, this policy was generally followed in all three of the western zones.

U.S. and British military governments are now working at top speed on a revised list of reparations plants. This will be followed by prompt dismantling—a prospect that must have weighed heavily with the French in their decision to give at least a grudging assent to the Anglo-American plan.

• **Uncompleted Notice**—The notice given the French at London was left uncompleted. They sat in on the conference knowing what was coming. They left with loud reservation on the decision to give the German economy higher priority on German resources. But the door was kept open behind them. The later meeting of experts in Berlin will give sympathetic consideration to the Paris government's political necessity to make good the claim of French steel on German coke.

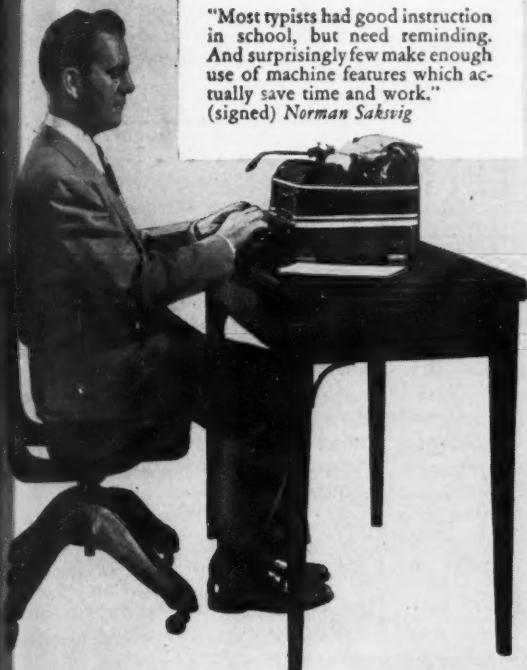
Coke means the Ruhr, and it is the Ruhr that will dispose of all the Anglo-American proposals. For the first level that has to be raised is that of the Ruhr's coalpile. And, two years after the end of the war, it's still 40% below prewar. This is the first problem in getting Germany on its feet, just as the Ruhr will be the first problem in keeping Germany's feet on the ground.

• **Gleam**—The solution of the immediate problem is not yet in sight—though it's certainly a gleam in America's eye. The Ruhr's most apparent needs—more food, housing, and work incentives for bombed-out miners—have been well publicized. There is also a crying need for mine and transportation equipment (which requires steel, which requires coal).

Some of the British control authorities who watch over mines from the luxurious Villa Hugel, great Krupp mansion outside Essen, will tell you that an early decision on—in the London ministries they say "for"—nationalization of industry is another need. But in the offices of the German mine managers, where you will often sense unregenerate longings for the paternal hand of the cartel, there's murmured complaint about red-taped direction from Villa Hugel.

• **New Ruhr Peak**—At about 243,000 tons a day, Ruhr coal production has just reached a new peak after the slump since March—and the longer one from prewar days when output was 400,000 tons. Last Friday the minister of the Achenbach mine, near Lunen, distributed the first of "care parcels" (ten-in-one rations), recently provided by the

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U. S. Army, as incentive awards to workers in mines hitting set production "targets."

Maybe a start has been made. But, as you come away from the Ruhr with legs that ache from crawling along a narrow seam of its coal, you wonder how any incentive can persuade a man to such labor; how much order must be restored to the economy before man-

agement can find the kind of incentives that work in America; how much time the British thought they had to go something started.

• **It's Late**—The London and Washington conferences are warning that it is late. Here in Germany there does not seem to be much time left to save the Ruhr, Europe, and the world peace.

LONDON LETTER

LONDON—The next two months are likely to be moderate Socialism's "last chance" in Britain.

A political showdown is shaping up underneath the country's economic crisis. Only a bold program which will show some immediate promise of providing a successful solution to the nation's problems can save the Attlee Cabinet. But so far, Attlee has not presented such a program. All he's offered is the hope that measures to expand the country's exports can be worked out within a few weeks.

Meanwhile, evidence accumulates that Attlee himself may resign before the October reopening of Parliament, to make way for a more vigorous and inspiring leader.

The nation needs such a leader now. The patient British public is not likely to put up much longer with the Attlee coalition. Attlee has been able to maintain a delicate balance among the groups that make up his Parliamentary majority—the radical demagogues, the trades-union opportunists, the doctrinaire Socialists, and a sprinkling of more realistic moderate Socialists. But now the teetering structure is collapsing. The split could come into the open almost any moment.

Right now, it's hard to tell whether the swing will be to the right or to the left. Foreign Secretary Bevin is the key figure on the right. Herbert Morrison, Lord President of the Council, might come up as the leader of the left-wing of the Parliamentary Labor Party. He's a better bet than noisy leftists like Aneurin Bevan, R. H. S. Crossman, and Ian Mikardo.

• **B**RITISH film producers and distributors are trying hard to save their American market by efforts to preserve the British market for the American producers. Strong representations are being made to the Chancellor of the Exchequer to

withdraw his 75% tax on remittances to the U. S. of the earnings of American films.

The British industry has two angles it is working:

(1) The tax is not truly an import duty but actually an income tax, which therefore violates an Anglo-American tax convention forbidding double taxation.

(2) On the other hand, if the tax is to be construed as an import duty, then it must be applied also to film imports from Europe and from Australia, where a budding film-making industry would feel the ax keenly.

Chief European source, of course, is France. That nation's industry is going through its own crisis, but hopes to work out a trade agreement with Britain so that the ban France has imposed on imports of films from Britain as a result of the tax can be lifted.

• **M**EANWHILE, another of British film magnate J. Arthur Rank's multifarious enterprises, Cinema Television, Ltd., is going right ahead with a project Americans will watch with keen interest: piping television programs into several of the West End theaters in London. Rank has said that he plans to have this idea in full operation this autumn. But his representative admitted a few days ago that, to date, he has only got as far as experimental reception in one theater on London's Tottenham Court Road. And when asked how Rank planned to get around British Broadcasting Corp.'s monopoly of broadcasting, they said that it was too early to discuss whether Cinema Television would "buy" BBC programs or depend entirely on its own research studios for programs which might be transmitted on a noninterfering wavelength to a central receiving point and passed by cable to the several theaters.

French Austerity

Sagging exports, British
is may mean drastic import
s. Bread ration now lower
in Nazi occupation.

PARIS—Like Britain, France now
is drastic import cuts and a tight-
ened belt.

Until recently the French govern-
ment had counted on importing more
of stuffs, coal, oil, and equipment
from the U. S. during the second half
of this year (\$450-million) than it ac-
tually imported during the first half
(\$7-million).

Utopia—But this program now looks
dismal.

(1) Britain's abrupt departure from
sterling has blocked French plans
to change \$60-million of sterling bal-
ances into dollars (BW—Aug. 30 '47,
5).

(2) France seems to have little
chance in the near future of getting the
\$1-million in German gold stocks it
had figured on collecting this year.
(3) French exports to the dollar area
are expected to sag some \$70-million
below earlier estimates.

Possible Outs—One way out of this
dilemma, of course, is to cut imports
drastically. Another is to switch pur-
chases to the pound area, to make use
of sterling balances. Still another would
be to stretch equipment purchases over
a protracted period. But this would only
lengthen further the limping Monnet
construction plan, which is already
suffering from a 40% budget slash
in money.

France can also fall back on its gold
reserve of \$550-million, plus a certain
amount of dollar securities which the
government recently called in from pri-
vate owners. But these resources would
have to be spread pretty thin to cover
France's trade deficits with the hard-
currency countries. In the first half of
the year these deficits ran \$427-million,
which the unfavorable balance with the
U. S. accounted for \$349-million.

Their Daily Bread—One of the bitter-
est blows of the present crisis has
been the Sept. 1 reduction in
the French bread ration. It is now a
mere 7 oz. daily—even lower than in the
first days of the Nazi occupation.
Meanwhile, inflation whirls ahead.
Food prices were raised more than
100% several weeks ago; meat con-
tinues to climb. Rents have substan-
tially increased; so have auto, steel, and
iron prices. The government's ordi-
nary budget has finally been brought
into balance, seven months late, but
the extraordinary budget shows a deficit
nearly \$3-billion.

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THE MARKETS

(FINANCE SECTION—PAGE 75)



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Security Price Averages

Stocks	This Week	Week Ago	Month Ago	Year Ago
Industrial	150.0	148.6	153.2	150.2
Railroad	42.9	42.2	43.8	50.5
Utility	75.7	75.4	76.3	77.0
Bonds				
Industrial	122.6	123.8	123.9	124.6
Railroad	109.8	109.8	110.5	117.1
Utility	114.1	114.2	113.7	115.6

Data: Standard & Poor's Corp.

September Song

Will stock market prices generally go up or down during September?

That's a tough question for those outside Wall Street to answer. And it also seems to have a great many of the Street's crystal-ball gazers pretty well stymied at the moment.

• **Bull vs. Bear**—That doesn't mean that the financial district has lost its usual quota of bulls and bears; both groups are still much in evidence. The bulls still firmly believe that the general upswing since mid-May is the first phase of a brand-new bull market. And the bears are just as insistent that the May-July rally was merely a secondary uptrend in a primary bear market—and that it signified no change in the earlier basic downtrend.

But neither group is going very far out on a limb to back up its beliefs with predictions. Few bulls, for example, seem to expect any early sharp rise in prices. And apparently none of

the bears anticipates any tobogganing—at least over the next few weeks. • **A Tricky Month**—This hesitancy is quite understandable. At best, September has always been a rather tricky month in the stock market. In the past 49 years, for example, the Dow-Jones industrial stock price average has dropped in 27 Septembers, and has managed to advance but 22 times. Even less favorable has been the record of the rail index. It has lost ground 28 times.

On the other hand, if you consider the evidence only during the last decade, the bulls seem to have had much the better of the argument. For in this period both rail and industrial averages chalked up September gains on six occasions, losses only four times.

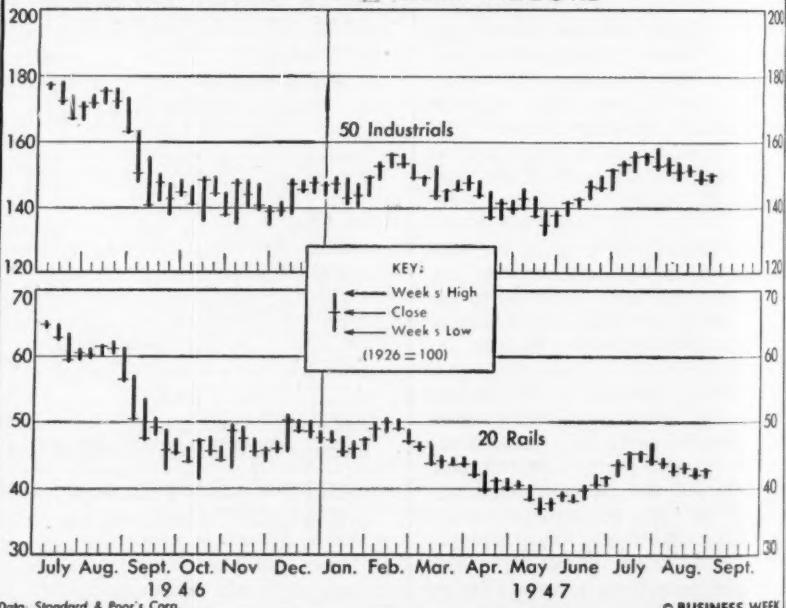
• **Bitter Memory**—But there is one element that Wall Street can't forget. The stock market has a habit of choosing September to stage some of its most dramatic price spills. Still a bitter memory is what happened in the September of 1929, 1937, and 1946.

Why has the stock market lately drifted dully up and down? What has been shrinking trading activity to its lowest level in several years?

To these queries Wall Streeters have many answers. The chief ones:

- Apprehension over the foreign situation, and particularly how it can eventually be permanently solved;
- Today's historically high levels of commodity and stock prices (despite

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

© BUSINESS WEEK

drop from the 1942-46 bull market (s): Widespread persistent beliefs that the next business boom will inevitably (te soon, many think) result in a session at least comparable to the early dips of 1920-21, or 1937-38. To the bulls these fears do not appear all well-founded. And they offer very strong arguments in rebuttal.

But so far—as the market's recent action indicates—most nonprofessional stock traders and investors have turned deaf ears to all bullish arguments. Whether they are being smart in continuing to stay on the sidelines is unanswerable. One thing seems clear, however: Improvement in investor psychology will probably be necessary to break the current stalemate.

Bull or Bear Market? It's Still Doubtful

August's "dog days" proved a rather embarrassing period for most of Wall Street's optimists. They had predicted that the sharp May-July rally signified the start of a brand-new bull market. But most Big Board trading sessions last month produced more "downs" than "ups." And entirely missing was the tendency to bid up for shares; during the rally, this tendency had sent market values (and bullish hopes) kiting.

What is the significance of the market's recent showing? To the

bulls it merely represents a rest period while the market digests its earlier gains in preparation for another move upward. In the case of the less optimistic, it confirms earlier beliefs that we are still in a bear market, and that the primary trend is still down.

However, as indicated in the sampling below, if a new bull market has actually been under way since mid-May it has been a selective and spotty affair where individual stocks are concerned.

Industrial	1942-46		1946-47		% of Bear Market	
	Bull Market	Bear Market	1947	Sept. 2	1947	Recovered
Common Stocks	High	Low	High	Loss		
Dow-Jones Average...	212.50	163.12	186.85	179.81	33.8	
Allied Stores	\$63.37	*\$30.00	\$39.25	\$35.50	16.5	
American Can	112.12	79.00	99.00	88.00	27.2	
Amer. Car & Fdry...	72.37	*36.00	54.87	49.12	36.1	
Amer. Tobacco "B"...	100.25	*61.00	84.75	74.00	33.1	
Anaconda Copper....	51.87	*30.87	42.00	35.75	23.2	
Bethlehem Steel	114.75	*76.50	99.00	87.25	28.1	
Burlington Mills (1)...	29.87	*14.00	22.50	19.00	31.5	
Chrysler Corp. (1)...	70.50	37.62	62.50	59.37	66.1	
Du Pont	227.00	161.00	197.00	192.50	47.7	
General Electric....	52.00	*32.00	39.87	36.62	23.1	
General Foods	56.12	*38.87	45.75	39.12	
General Motors	80.37	47.75	65.87	59.12	34.9	
B. F. Goodrich....	88.50	*49.00	71.75	53.00	10.1	
Int'l Harvester	102.00	66.25	95.00	86.75	57.3	
Johns-Manville (1)...	55.87	*35.26	45.25	44.00	41.4	
Montgomery Ward ...	104.25	*49.00	64.62	60.25	20.4	
Nat'l Distillers (1)...	32.37	*17.62	22.75	20.87	22.0	
Pacific Mills (1)....	48.00	*25.62	39.50	34.87	41.3	
Paramount Pict. (1)...	39.62	*22.75	32.75	23.25	
Sears Roebuck	49.62	*30.12	40.75	38.00	40.4	
Standard Oil (N. J.)...	78.75	61.62	80.00	76.87	89.0	
Swift & Co.	41.12	*30.62	37.87	33.25	25.0	
Tide Water Assoc. Oil	24.12	17.50	22.00	20.37	43.4	
Union Carbide	125.00	88.00	110.75	107.87	53.7	
United Air Lines....	54.25	19.50	28.50	19.75	
United Fruit (1)....	53.62	41.50	59.75	54.62	108.3	
U. S. Rubber....	80.00	*40.75	60.50	44.37	9.2	
U. S. Steel.....	97.37	*61.62	79.37	71.25	26.9	
Westinghouse (1) ...	39.75	21.12	30.50	28.12	37.6	
Railroad						
Common Stocks						
Dow-Jones Average...	68.31	*41.16	53.42	49.12	30.1	
A. T. & Santa Fe....	\$121.00	*\$66.00	\$99.00	\$83.62	32.0	
Atlantic Coast Line...	83.00	*40.50	59.00	51.25	25.3	
Chesapeake & Ohio...	66.87	*41.50	54.75	47.75	24.6	
Great Northern (pid.)	64.00	*34.50	49.87	40.25	19.5	
Illinois Central	45.50	*18.12	30.00	26.62	31.0	
Louisville & Nash. (1)	72.25	*40.00	53.00	46.37	19.8	
New York Central...	35.75	*12.00	22.37	15.25	13.7	
Pennsylvania	47.50	*17.87	26.87	19.00	3.8	
Southern Pacific	70.00	*34.50	47.25	44.00	26.8	
Southern Ry.	65.00	*28.00	50.50	38.25	27.7	
Union Pacific	168.50	110.00	147.00	139.62	50.6	

(1) Adjusted for stock split-ups. * Bear market low registered in 1947.

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THE TREND

CYCLES—THE (PSEUDO) SCIENCE OF PREDICTION

A number of our readers have requested that we give them our opinion of the best selling book, *Cycles—the Science of Prediction*, by Edward R. Dewey and Edwin F. Dakin. Being kind hearted by nature, we have wanted to avoid doing this. However, it becomes increasingly apparent that a lot of people are taking very seriously this book which foresees the crack of economic doom shortly after 1950. Consequently, we no longer feel privileged to withhold what we think about *Cycles*.

• **In a word, we regard it as one of the most misguided exercises in economic soothsaying which has crossed our horizon in many a moon.** In this opinion, which in no way impugns the sincerity of the authors of a remarkably well written book, we have by strong and unmistakable inference the support of the cycles students of the National Bureau of Economic Research. They constitute the U. S. Supreme Court in the cycles line.

It is the conclusion of Dewey and Dakin that we are in for a major depression soon after 1950. Also the authors conclude that there is not much of anything to be done about it except to batten down the hatches and ride out the storm. The reason, as they see it, is that this depression will be, as other depressions have been, the result of uncontrollable economic cycles. Four separate cycles, operating at different rhythms, will all be at or near their bottoms in '51, '52, or '53. That, coupled with the fact that our economy no longer has the resiliency of youth, promises a severe depression.

• **The four particularly important economic rhythms which Dewey and Dakin present and the times when they anticipate they will next hit bottom are as follows:**

- (A) A 54-year rhythm in industrial prices and industrial innovations (27 years each on the up and down beats) in 1952.
- (B) A nine-year rhythm in wholesale prices, security prices, pig iron prices, and industrial activity, in 1951.
- (C) A 3½-year rhythm in security prices and in wholesale and retail sales, in 1951.
- (D) An 18-year rhythm in building activity, in 1953.

Now don't start wondering about the causes of these rhythms. That will lead you off the track. The important facts for the authors are: (1) that they have recurred regularly, and (2) that when their lows have coincided, deep depression has been there, too. Furthermore, there's nothing whatever you can do about it, for in the present state of knowledge, the movement of these cycles is fixed and immutable, beyond the power of man to control.

Well, what's wrong with this picture? Just about everything, as we see it.

The developments plotted have not clearly recurred in the rhythmical patterns plotted by the authors. The rhythms they have plotted do not fit their key proposition that unison on the down beat and great depre-

sions have gone together. And there is no convincing evidence that ours is the mature economy envisioned.

Here is how the swings of the rhythms, as plotted by Dewey and Dakin, have conformed to the major economic reverses in the last three-quarters of a century:

- (1) When one of the worst of all of our depressions hit in 1873, rhythms B and C were still going up; rhythm A had turned down two years earlier and rhythm D had been going down for three years.
- (2) In 1893, when another prolonged depression started, rhythm A was going down; rhythm D had turned down five years earlier; rhythm B had turned down a year earlier; and rhythm C started down as the depression did.
- (3) In 1909, all but rhythm D were on the upgrade.
- (4) In 1920, rhythms A and D were moving up while the other two had started down.
- (5) By the end of 1929, all four were on the down-grade. The two long rhythms had been going down for four years and B, the nine-year rhythm, had turned down a year earlier.
- (6) In 1937 all but rhythm D were on the down beat.

• **While this record shows that one or more of the cycles has called the turn every time, it also shows that it has not always been the same rhythm.** Also the rhythms which happened to point the way were not successful in indicating either the timing or the severity of business reverses. To be sure, severe depressions followed sooner or later when all four rhythms turned down. But it has happened only three times during the period since we have had moderately reliable statistics. By the authors' own rules the same pattern must be repeated many times before it can be considered a rhythm rather than coincidence. There has been no such repetition.

The statistical procedures which Dewey and Dakin use in plotting their rhythms are open to challenge.

For example, three of their standard procedures—using annual rather than monthly figures, eliminating long-term trends, and using moving averages—make rhythms appear much more regular than they actually are. Many of the statistics they use for earlier periods are necessarily little more than guesses. And they base their conclusions upon analysis of only a handful of cycles.

• **After detailed examination** of over a thousand economic series, reporting business fluctuations, the National Bureau of Economic Research concludes (in its monumental *Measuring Business Cycles*) that no two are alike. It's a tough book to wade through but if you want a devastating refutation of the automatic, inevitable, and neatly rounded nature of business cycles, as portrayed in *Cycles*, it will give it to you.

In the meantime, don't be a sucker and resign yourself to the economic fate which Dewey and Dakin portray as inevitable. If we mess up our economy again, as we may, neither blind fate nor ultraviolet rays, which they mention as a remote possibility, will be to blame. It will be largely our own stupidity.

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